DOCUMENT RESUME

ED 283 521 IR 051 993

AUTHOR	McClure, Charles R.; Hernon, Peter
TITLE	Academic Library Use of NTIS: Suggestions for Services and Core Collections.
INSTITUTION	Syracuse Univ., N.Y. School of Information Studies.
SPONS AGENCY	National Technical Information Service (DOC), Springfield, Va.
REPORT NO	ISBN-0-934213-04-6
PUB DATE	Oct 86
NOTE	70p.
AVAILABLE FROM	National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161 ($12.00 plus $3.00 shipping, order #PB86-228871).
PUB TYPE	Guides - Non-Classroom Use (055) -- Reference Materials - Bibliographies (131)
EDRS PRICE	MF01/PC03 Plus Postage.
DESCRIPTORS	*Academic Libraries; *Access to Information; Annotated Bibliographies; Computer Software; Higher Education; Information Dissemination; *Library Collection Development; Library Instruction; *Library Services; Magnetic Tapes; Microfiche; *Reference Materials; *Scientific and Technical Information
IDENTIFIERS	*National Technical Information Service; OCLC

ABSTRACT

Intended to assist academic librarians and other information professionals in better exploiting the information resources available through the National Technical Information Service (NTIS), this two-part manual offers practical suggestions and strategies for making NTIS information services and products available through academic libraries. Suggestions to increase academic librarians' awareness of and access to NTIS services and products are offered in the first section of the manual, including development of a knowledge base of NTIS services and products; taking into account the basic considerations of access, bibliographic control, and microfiche use; development of collections of NTIS materials; promotion of NTIS materials within and outside the library; development of an NTIS service plan; and increasing the use of NTIS materials. This portion of the text is supplemented with 6 figures, and 21 references are provided. The second part of the manual, which identifies core collections of NTIS reports, reference materials, microfiche, diskettes, and magnetic tapes within 16 major subject areas, is intended to help librarians in any setting determine which NTIS titles are significant for particular subject areas and to allow librarians to better integrate NTIS materials into their collections. Indexes by NTIS document title and by order number are included. Instructions for searching OCLC for NTIS materials and an NTIS order form are appended. (KM)

Academic Library Use of NTIS

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ED283521

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NTIS LIBRARY LIAISON NETWORK

NTIS makes a special effort to directly interact with libraries. Library groups are encouraged to name an individual to serve as an NTIS liaison, to provide NTIS with commentary about their needs and problems, and to make suggestions for the improvement of NTIS products and services. Currently some 100 groups are participating including library association chapters and university library staffs.

If you would like your group to be part of this informal *Library Liaison Network*, please write or telephone the Director, Office of Customer Services, NTIS, Springfield, VA 22161; (703) 487-4624.

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Academic Library Use of NTIS

Suggestions for Services and Core Collections

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October 1986

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Acknowledgements

This manual could not have been prepared without the assistance of many people. First, the authors wish to acknowledge the suggestions and comments received from the Advisory Committee on drafts of the manual. Committee members included Susan Ardis, University of Texas; Fred Batt, University of Oklahoma; Thomas W. Conkling, Pennsylvania State University; Michael Fineman, University of California, Irvine; David Gay, Texas A&M University; Jean Kirkland, Georgia Institute of Technology; Elizabeth McBride, Emory University; Michele McKnelly, Oklahoma State University; and Gary R. Purcell, University of Tennessee.

A special note of appreciation also goes to Jan Swanbeck, Texas A&M University; Charlene M. Baldwin, Douglas E. Jones, and Cynthia Bower, all from the University of Arizona; and Michele McKnelly, Oklahoma State University. They prepared preliminary reports and position papers related to the provision of NTIS services and products in an academic library setting. Each provided excellent suggestions and views on how academic libraries can assist in linking NTIS information services and products to their clientele. Swanbeck and Bower also reviewed material related to the core collections, and made numerous helpful suggestions that guided the revision of the list. Victoria Pendleton of the Graduate Library School, University of Arizona, assisted in the verification of entries for the core collections. We appreciate her support and diligent searching.

Finally, the authors wish to acknowledge the assistance from Ruth S. Smith, Director, Office of Customer Services, NTIS, who served as a liaison between NTIS and the authors during this project. Also, special thanks is given to Edward J. Lehmann and Mary M. Keefe who edited, designed, and formatted this collection. A number of other staff at NTIS also assisted in the final preparation of the manual--and, to them, we are especially grateful for their suggestions and guidance.

Neither the United States Government nor any other person acting on behalf of the United States Government assumes any liability resulting from the use of the information contained in this document.

International Standard Book Number ISBN 0-934213-04-6

This publication is for sale by the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, VA 22161; (703) 487-4650. The price is $12 plus $3 for shipping and handling, and the order number is PB86-228871.

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Preface

The U.S. National Technical Information Service (NTIS) offers a diverse range of important information resources for the physical, social, behavioral, and life sciences. Indeed, these information resources, available in both print and nonprint formats, constitute an essential type of Federally-distributed information and should not be ignored by information professionals.

This manual is intended to assist academic librarians, and other information professionals, in better exploiting these information resources available through NTIS. It offers a number of practical suggestions and strategies for making NTIS information services and products available through academic libraries. The role of academic librarians in assisting the academic community with access to NTIS resources should be a natural and positive one. Both NTIS and the academic library community can work together and increase the range of valuable information resources available to faculty, students, and other clientele served by college and university libraries.

This manual is divided into two parts. The first offers suggestions that can increase academic librarians' awareness of and access to NTIS services and products. It provides a broad range of ideas which may be appropriate for a number of academic libraries. However, individual libraries will have to decide which suggestions will be more useful in their particular settings. Nonetheless, the manual introduces a range of options that these librarians might implement as a means of exploiting NTIS services and products.

The second part of the manual provides the library profession with a first attempt at identifying "core collections" of NTIS reports, reference materials, diskettes, and magnetic tapes within specially selected subject areas. It is intended to help librarians, not just those in an academic setting, to determine which NTIS titles are significant for particular subject areas and allow them to better integrate NTIS materials into their collection.

Clearly, it is a first attempt at identifying NTIS core titles and does not include all possible subjects and titles. Additional or replacement titles can be suggested. Nonetheless, the list serves as a reminder of the diversity of the NTIS collection and its importance to numerous disciplines and user groups. The further development and refinement of this core list will be on-going; suggestions for additions and deletions should be directed to the Director, Office of Customer Services, NTIS.

Use of this manual can assist academic and other librarians in increasing the visibility of NTIS products and services in their library, improving bibliographic and physical access to these valuable information resources for their clientele, and enhancing the importance of this Federal clearinghouse to the scholarly and research activities of universities and colleges. Academic librarians have an important role to play in the transfer of information in the academic community; it is our hope that this manual will assist them in this role and encourage them to exploit these valuable NTIS information services and products.

Charles R. McClure
Peter Hernon
July 1986

Part I: Promoting the Use of NTIS Information Sources and Products

Introduction

In recent years, the Federal government has spent some $50 billion annually to support research and development (R&D). Much of the results from this R&D is reported through the National Technical Information Service (NTIS). NTIS, part of the U.S. Department of Commerce, collects and disseminates this Government-sponsored scientific, technical, and engineering R&D to the public in the form of technical reports.

Since World War II, the agency has accumulated some 2 million items; it adds approximately 75,000 items per year to its collection. The reports entering the collection originate from Federal agencies (including, for example, the Department of Defense, Department of Energy, and the National Aeronautics and Space Administration), their contractors and grantees. State and local governments, colleges and universities, professional associations, and international sources also contribute reports.

These reports cover a wide range of topics in areas of the natural sciences (e.g., energy, chemistry, medicine, biology, environmental sciences, nuclear science, and technology), and the behavioral and social sciences (e.g., administration, library and information science, sociology, and business and economics). In addition to report literature, the NTIS collection includes periodicals, bibliographies, and other reference and research materials available in paper copy, microfiche, magnetic tape, and floppy diskette. NTIS acquires and distributes Federally-produced computer programs and databases.

The agency updates the Federal Research in Progress (FEDRIP) database which describes ongoing Federally-funded research projects in the physical and life sciences, and engineering. The database is updated twice each year and online access is available through DIALOG information services and Mead Data Central. FEDRIP provides a unique information resource of research in progress or initiated and completed in the previous two years. Currently, research summaries are provided by:

- U.S. Department of Agriculture
- National Bureau of Standards
- Transportation Research Board
- U.S. Department of Energy
- National Aeronautics and Space Administration (NASA)
- U.S. Geological Survey
- National Institute for Occupational Safety and Health
- Veterans Administration
- National Science Foundation
- National Institutes of Health

NTIS also maintains the Center for the Utilization of Federal Technology, which assists U.S. businesses and state and local governments in furthering their technology transfer programs, and licenses government-owned patents with significant commercial potential. And, finally, NTIS "provides accounting and production services to Federal agencies and technical assistance for the Agency for International Development's efforts to transfer U.S. scientific and technical information to developing countries" ("Productivity, Technology, and Innovation...," 1986, p. 15868).

Librarians can access the NTIS collection online through DIALOG, SDC, BRS, or Mead Data Central, or manually through Government Reports Announcement & Index (GRA&I). NTIS provides a broad range of services and products such as Abstract Newsletters, Tech Notes, and Selected Research in Microfiche (SRIM) to assist users in identifying and obtaining high interest materials. The Users' Guide to NTIS (NTIS, 1986) explains these and other services/products available from NTIS.

Without question, the NTIS collection is one of the most significant and important sources of United States and international scientific and technological information (STI) that exists in the world today. Recently, a contracted study for NTIS recommended a number of improvements to aid academic and public libraries in better accessing and exploiting these valuable information sources (McClure, Hernon, and Purcell, 1986).

One of the most critical ingredients for successful access to NTIS materials is the role of the librarian as an intermediary of the information environment -- connecting patrons to NTIS materials, services, and products. Such a role , as shown in Figure 1, *(all figures are llocated at the end of Part I)* places the librarian in the important position of linking NTIS information sources and products to current and potential seekers of such information.

However, a recent unobtrusive study of reference services provided for NTIS materials in academic and public libraries found that only 41% of a basic set of reference questions related to NTIS sources were answered correctly, there was minimal referral of NTIS-related reference questions to other information providers, and there was limited familiarity with basic NTIS information services and products (Hernon and McClure, 1986).

The study suggested that numerous possible filters can minimize the effectiveness with which librarians meet information needs benefiting from access to NTIS sources and products. Recognizing potential filters and developing strategies to reduce their impact can increase the effectiveness of libraries as an provider of NTIS services and products. Librarians need to assist users in exploiting the broad range of NTIS information sources and products, which, otherwise, may go largely unnoticed in the academic community (McClure, Hernon, and Purcell, 1986).

Based on the findings of the recently completed study, NTIS requested that Charles R. McClure and Peter Hernon develop a short, concise, and practical publication that assisted academic librarians in:

- increasing their awareness of NTIS information services, sources, and products;
- increasing clientele awareness of NTIS information services, sources, and products;
- implementing services that better access and exploit NTIS materials; and
- developing "core collections" of NTIS materials for their particular library setting.

Attention to these four areas may significantly increase the purchase and use of NTIS materials by academic libraries, and the faculty and students in academic institutions.

This guide is intended to be suggestive of possible services that academic librarians might consider for increasing awareness of and access to NTIS materials, services, and products. It does not review the range of services and products summarized in the Users' Guide to NTIS (NTIS, 1986). The service suggestions recognize that academic libraries are organized in different ways and have different missions, goals, and objectives.

At the same time, NTIS has a responsibility to assist academic librarians in increasing their awareness and their effective/efficient use of NTIS information services and products. Such recommendations are beyond the scope of this particular manual, but readers might consult the concluding chapter of Linking the U.S. National Technical Information Service with Academic and Public Libraries (McClure, Hernon, and Purcell, 1986), which does offer some suggestions.

In an academic library setting, increased awareness of and access to NTIS information services and products is essential because:

- NTIS offers a rich collection of Federally-sponsored and other research; these research reports will complement the information resources received through other segments of the public sector;
- the mission of a university often mandates that the faculty have maximum access to current research reports and research data, such as those available on magnetic tapes and floppy disks;
- NTIS materials are generally not included in commercial indexes and other reference sources; in all likelihood, failure to search GRA&I or the online NTIS Bibliographic Database means that the NTIS collection may not be tapped for the resolution of relevant information needs;
- materials in the NTIS collection directly support graduate and upper division undergraduate teaching and research; and
- NTIS has developed excellent information services including current awareness services, such as Abstract Newsletters and Tech Notes, that make it easy for librarians to assist patrons needing current research reports for a broad range of topics.

In short, NTIS information services and products provide an essential mechanism for librarians to assist users in increasing their research productivity and in staying up-to-date with research developments in a broad range of fields.

Specific steps can be taken to better integrate NTIS information sources and products into a library and ensure their use. Figure 2 suggests, in outline form, possible strategies that can be considered. While these suggestions are not comprehensive, they may be applied to a broad range of academic library settings. Each strategy summarized in the figure will be discussed in greater detail.

Developing a Knowledge Base of NTIS Services and Products

Before librarians develop and implement specific services to promote and increase access to NTIS materials, they must become familiar with the products and services that NTIS provides. Thus, they must review a number of materials that describe NTIS services and products:

- The Users' Guide to NTIS (NTIS, 1986) introduces the agency and offers an excellent overview/description of its services and products, and methods for acquiring materials. Copies of the guide may be obtained free from NTIS; McClure, Hernon, and Purcell (1986) reprint the guide as an appendix item;
- General Catalog of Information Services (NTIS, n.d.) also provides an overview of NTIS services as well as a more descriptive and detailed presentation of specific NTIS services and products. The catalog is updated periodically and copies may be obtained free from NTIS by referencing brochure PR-154;
- Linking the U.S. National Technical Information Services with Academic and Public Libraries (McClure, Hernon, and Purcell, 1986) describes a study that (1) assessed the effectiveness of academic and public libraries in providing their user communities with effective access to NTIS services and products, and (2) tested,

unobtrusively, the extent to which academic and public library staff were knowledgeable about NTIS sources and services;

- NewsLine, issued regularly from the NTIS' Office of Customer Services, provides current information about agency activities and new products; a subscription is free to interested individuals;
- Online Search Guides to the NTIS Bibliographic Database from DIALOG, SDC, BRS, and Mead Data Central (e.g., the "blue - sheet" from DIALOG) offer a quick summary of the basic search fields and search options available when conducting an online search of the NTIS Bibliographic Database; and
- NTIS Bibliographic Database Guide, (NTIS, n.d.) is an excellent reference tool for users of the NTIS Bibliographic Database, 1964-1986. It can be obtained free from NTIS as brochure PR-253.

Further, librarians can familiarize themselves with GRA&I, its coverage of paper copy and microfiche reports, magnetic tapes, maps, and floppy diskettes; the price codes; the online database; and basic NTIS reference sources and ordering options described in the Users' Guide To NTIS. They should also examine sample NTIS reports.

Librarians may also want to review the broader context of government technical report literature; become familiar with the various accession number codes; and better understand the relationships among the databases at the Department of Energy, the Environmental Protection Agency, NASA, and the Department of Defense. A useful introduction to these topics can be found in Sears and Moody (1986, pp. 192-198).

A second necessary step is to develop basic core collections of reference and other NTIS-related materials. The second section of this guide identifies candidate core titles. Using the suggested core collection, libraries can review their holdings of NTIS materials and select additional titles for purchase. By conducting a review of their holdings, library staff may be reminded that NTIS offers the SRIM service, which provides prompt access to technical reports included in the prearranged profile or which may be customized for a specific user.

The success of the following strategies will depend, to a large degree, on librarians' knowledge of individual services and products and the unique contribution that these services and products can make to the library's collection and services. Nonetheless, developing both strong collections and action-oriented services are necessary if libraries are to increase awareness of and access to NTIS materials.

Basic Considerations

Access to NTIS Materials

A library needs a plan for organizing and providing access to NTIS and other materials. Depending on the library, NTIS materials might be best located in the government documents department, a science-engineering library, the microforms collection, or in central reference collections. Responsibility should be clearly established for who or which library area:

- provides reference and referral services for NTIS materials;
- organizes and establishes bibliographic control of NTIS materials;
- engages in collection development (selection, acquisition, collection evaluation, and deselection) of NTIS materials; and
- has overall administrative responsibility for the provision of NTIS information services and products.

A library should develop a short, written policy statement covering each of these areas and the procedures by which these activities should be considered prior to implementing any of the strategies suggested below. This is especially true if more than one library area or individual is involved in the provision of NTIS services and products.

Degree of Bibliographic Control

A conscious decision should be made about the level of bibliographic control that NTIS materials will receive. While reference sources may benefit from full bibliographic description, individual reports may not -- especially in instances where the library receives numerous titles, many of which are on microfiche. Generally, bibliographic control over NTIS materials is fragmented because these materials appear in different formats and because they are often-times separated from other library collections. They include both government and non-government publications (paper copy and microfiche), as well as government information resources (magnetic tape, floppy diskette, and optical disk).

Complete bibliographic records for reports listed in GRA&I are difficult to locate; only about 25-30% of the listings in the indexing/abstracting service are included in the OCLC database (McClure, Hernon, and Purcell, 1986, pp. 113-127). Other bibliographic utilities also provide limited access to cataloging records for NTIS distributed publications. Options for cataloging NTIS reports include:

- complete cataloging: for all reports received, first check to determine if cataloging copy is available through the OCLC database or another bibliographic utility; if the record is not there, provide original cataloging and input the record into the library's catalog, and, if possible, a bibliographic utility;

- partial cataloging: for all reports received, first check to determine if cataloging copy is available through a bibliographic utility; if the record is not there, provide brief cataloging or implement other in-house control devices; and
- in-house control devices: rely on GRA&I as a checklist of reports maintained in the library, develop listings of the NTIS report accession numbers that have been purchased, or develop an in-house microcomputer-based shelflist with, perhaps, brief cataloging information.

These options are not exhaustive, but are suggestive of possible approaches.

Regardless of the approach taken, it is essential for the library to (1) agree upon a specific approach and the level of bibliographic control it wishes to maintain over the NTIS reports, and (2) recognize the impact of this level of bibliographic control on reference services and general access to NTIS materials.

Since 25-30% of the listings in GRA&I are included in the OCLC database, libraries can verify and maintain bibliographic control over some NTIS materials by searching the OCLC database or the BRS "Easy Ref" database, which includes those OCLC records produced since 1980. The Appendix offers an introduction to searching the OCLC database via the BRS "Easy Ref" file for NTIS records.

Using Microfiche

Although the major NTIS reference tools appear in paper copy, most academic libraries obtain technical reports in microfiche. Thus, libraries that organize and make NTIS microfiche available to users should review Hernon (1982) and address special concerns related to the provision of information in a microformat, including:

- equipment needs: obtain the best quality microfiche readers, reader-printers, fiche-to-fiche duplicators, and portable or attache microfiche readers (available for circulation); in addition, the library should have an "adequate" number of each piece of equipment;
- viewing areas: set aside special facilities for viewing microfiche (e.g., darkened rooms and study carrels located near to the NTIS reference tools and specially trained staff);
- storage facilities: obtain microfiche storage cabinets and maintain proper temperature and humidity levels; and
- on-site staff assistance: provide users with easy access to staff for assistance in copying microfiche or using equipment.

Additional information on these and other concerns is available in Saffady (1985).

Initially, libraries might assess the microfiche facilities and complete a worksheet that describes existing levels of support for a microfiche collection (see Figure 3). After completion of the worksheet, the staff can determine the degree to which existing facilities are adequate and meet service objectives. Then, they can make a list of any additional resources that are needed.

Probably the single most important factor in increasing use and access to materials in a microfiche format is staff and user attitude. A positive attitude that microfiche can be used effectively; that paper prints can be easily obtained, if desired; that courteous and knowledgeable staff assistance is close at hand; and that microfiche comprises a normal format for the acquisition and use of information is essential. Hernon and McClure (1984, pp. 240-255) offer additional suggestions for increasing access to microfiche collections.

Developing Collections of NTIS Materials

Increasing awareness and educating library staff and users are essential. At the same time, users need prompt access to the actual NTIS materials. Staff must make a conscious effort to develop the library's collection of NTIS materials. A collection development policy statement should specifically address the level of collection building to be dedicated to scientific, technical, and engineering report literature -- and within that context, the subject emphases and levels of comprehensiveness of materials to be obtained from NTIS.

Further, consideration must be given to obtaining NTIS materials in a microfiche format, or, at considerably more cost, in paper or machine-readable form. Hernon and Purcell (1982) and Hernon and McClure (1984, pp. 78-99) discuss the development of collection development policy statements, the content of such statements, and integration of specialized activities into the overall collection development activities of the library. Participation in the Selected Research in Microfiche (SRIM) program represents the single best strategy for developing an ongoing and current collection of NTIS materials that meets the information needs of library clientele in the most cost- beneficial manner. The program is similar to a book approval plan in that the library establishes a subject profile or specific areas in which it wishes to collect NTIS reports. These subject areas are based on 40 major categories and over 350 subcategories. In addition, customized profiles are available. Libraries select which of these categories is appropriate for their collection development needs and, in return, automatically receive the reports as issued in these categories.

One of the best features of the SRIM program is that NTIS will automatically customize an index for the SRIM publications that the library receives. Thus, by using this SRIM index, users can be assured that any item listed should be in the library's collection. In addition to the SRIM service, libraries can use their deposit accounts with NTIS (required for standing order services such as SRIM) and order individual items on an "as needed" basis.

Libraries can also take advantage of the "Exception Price Item List" that accompanies each SRIM shipment. This is a list of titles that fall within the SRIM profile but are not included in the regular SRIM distribution system because of the higher prices. A review of this list can also assist in the selection process.

Other strategies for developing collections of NTIS materials include the use of the online NTIS Bibliographic Database. For example, retrospective searches cutting across SRIM categories may identify a set of reports on a particular topic; these reports could then be ordered online through a number of the database vendors or directly through NTIS. In addition, some academic libraries run a monthly pre-determined search to identify new NTIS reports in particular subject areas. Any "hits" are ordered for the collection or distributed to faculty as part of a current awareness service.

NTIS offers a HELP desk for users of the online database. By calling (703) 487-4640 between 8:00 a.m. and 5:00 p.m. (Eastern Standard Time), searchers can speak to an information analyst about terms, coding, and thesauri used in the database.

Another valuable selection technique is to refer to the NTIS "Best Sellers List." The list compiles NTIS' 100 best seller from 1974 through September 1984. A copy of this list is included as Appendix E in McClure, Hernon, and Purcell (1986). The list is updated quarterly and can be obtained directly from NTIS. Reference to the list of best sellers may also assist in the selection and development of NTIS collections.

For libraries that wish only to acquire core collections of key NTIS materials for specific subject areas, possible titles are suggested in Part II of this guide. These suggested core collections of basic reference and other sources offer an excellent means for a library to establish and maintain an ongoing collection of important NTIS materials and add to that collection on a regular basis.

Increasing Awareness of NTIS Services and Products

Before NTIS services and products will be used, library staff and patrons must be aware of (1) the specific services and products that are available, and (2) how these services and products will benefit them. Specific strategies will increase both library staff and user awareness.

As a general introduction to NTIS, its services, products, and operations, the agency has produced a slide presentation with accompanying script. The slides and script are made available directly from NTIS and provide an excellent overview and introduction to the agency. The slide-script presentation has been used successfully as continuing education for librarians and for increasing awareness of library clientele.

Educating Library Staff

Creating staff awareness of NTIS is a critical first step in increasing the use of the collection. They must recognize the wealth of information available from NTIS and be able to either provide the patron with needed information or refer that person to someone who can access NTIS resources. The library department or area with overall responsibility for the NTIS collection must educate other staff about NTIS information services and products.

Training sessions for all library staff provide a broad overview of the collection. These sessions should

- offer specific examples of NTIS reference sources and reports which illustrate the diversity of topics covered by the agency;
- relate these titles to the types of questions that different departments receive; and
- cover the NTIS Bibliographic Database, reference tools such as the GRA&I, the Directory of Computer Software, the Directory of Federal Laboratory and Technology Resources, and other titles listed in the subsequent core collection. The use of training manuals and/or video tapes may enhance training sessions, and all new reference staff should view these educational aids on a regular basis.

Reference staff should gain "first-hand" experience with the use of NTIS reference sources and reports. Regardless of where the NTIS collection is physically located, staff can be "traded" among the service locations and receive in-depth training in the use of NTIS services and products. Or, practice questions and simulations requiring the use of NTIS materials can be utilized (McClure and Hernon, 1983, pp. 111-160; and McClure, Hernon, and Purcell, 1986). Such techniques may make "believers" of staff members who have not regularly used NTIS materials and who are unaware of these materials. These individuals will discover that NTIS materials cover a broad range of subject areas and learn how to use sources that offer access to NTIS materials.

Knowledgeable individuals on the library staff, information professionals outside the library who work regularly with NTIS materials, online bibliographic database instructors from the various vendors, and library educators might offer training programs. Depending on the learning objectives of these programs, the availability of manuals and other support documentation, and the amount of available time, one or combinations of the above types of trainers may be best for a particular situation. In addition, speakers from NTIS might work directly with individual libraries and professional associations to provide information and instruction about the agency.

Educating Students

Of course, NTIS services and products can and should be included in the library's bibliographic instruction program. However, two different levels of instruction should be considered:

- level I: freshmen and sophomores may require only basic information about GRA&I, online access, basic ordering information, and an introduction to NTIS reference sources; and
- level II: upper classmen and graduate students -- especially in the sciences -- will require more detailed instruction on search techniques, organization of the collection in the library, the broad range of NTIS reference tools, and information on the various ordering options.

Librarians can develop either type of instructional unit as part of general library instruction sessions or as customized sessions for specific individuals, departments, or classes -- primarily at the graduate level -- focusing on access to government information or report literature.

Regardless of the level of instruction, sample search strategies, handouts that describe the various NTIS services (which may be duplicated from the Users' Guide or the General Catalog), location/ organization of NTIS materials, and other information can be collated together into a workbook or guide. A useful addition to such a workbook might be a pathfinder that describes a typical search on a specific subject and how NTIS sources contribute to finding information on that topic.

Two works offer instructional modules for NTIS technical report literature: Locating United States Government Information (Herman, 1983, pp. 185-195) and Using Government Publications (Sears and Moody, 1986, Vol. 2, pp. 192-198). These contain excellent graphics, summary tables, and descriptive information which might assist librarians in developing instructional materials -- whether for increasing staff or patron awareness.

Ongoing evaluation of any programs of bibliographic instruction is essential for determining the degree to which programs are successful -- effective and cost-beneficial. The Bibliographic Instruction Section, the Association of College and Research Libraries, has produced a useful guide for designing and evaluating such programs. Its publication, Evaluating Bibliographic Instruction: A Handbook (American Library Association, 1983), can greatly assist librarians having to develop and implement bibliographic instruction programs.

Educating Faculty

For various reasons, educating faculty about the value of NTIS materials may be a challenging task. Generally, educating faculty about NTIS, specific subject coverage, and the quality/ breadth of research coverage must be done in the context of the individual's information needs for a particular project. Although faculty "seminars" can be held either in the library or in a particular department, the most effective education will occur when they would benefit from access to NTIS information services and products for the resolution of a pressing information need. To increase faculty awareness of NTIS information services and products, library staff can target individuals or departments that have the greatest likelihood of using NTIS services. This can be done by:

- matching the basic subject categories listed in GRA&I with the appropriate departments on campus;
- identifying individual faculty with research projects that have subject compatibility with subject areas covered by NTIS; this can be done by a regular review of the funded projects on campus, news notes on faculty research in campus publications, and discussions with individual faculty members; and
- identifying organized research units on the campus whose charge, primarily, is that of obtaining funded research and/or producing research.

After these faculty, departments, or organized research units have been identified, they can receive newsletters, listings of current reports in their particular area, or specially developed presentations. Generally, however, librarians must go to the faculty directly rather than waiting for them to come to the library. An active stance is needed if members in the academic community are to be better educated regarding NTIS information services and products.

One area that is essential for faculty to understand is the ordering procedures to obtain NTIS reports. Most academic libraries do not receive the full complement of NTIS publications; thus, in a number of instances, once the appropriate report has been identified, faculty members may have to order the report themselves, if the library does not own it or is unable to purchase it promptly. Thus, blank order forms and instructions for ordering reports should be readily available and widely distributed. One practical approach is to simply have a set of handouts with ordering information and blank order forms located adjacent to GRA&I.

Promoting NTIS Materials Within the Library

There are numerous opportunities for promoting NTIS materials and services within the library. However, all of the strategies suggested in this section, as well as the next, are based on the assumption that library staff themselves have adequate awareness of NTIS services and products. Generally, the success of such strategies is linked to the enthusiasm, creativity, and innovativeness of the librarians responsible for NTIS materials and services.

Online Database Searching

A number of academic librarians are unfamiliar with the scope, contents, and overall value of the NTIS online database (McClure, Hernon, and Purcell, 1986). Thus, librarians who are responsible for online bibliographic database searching must become more familiar with this database and use it regularly when conducting searches for research reports in science, technology, and engineering. Compared to the cost of searching other databases, the cost of searching the NTIS Bibliographic Database is quite low.

Training sessions for library staff should review the scope of this database and discuss instances when its use is especially appropriate. Copies of instructional materials (e.g., NTIS Bibliographic Database Guide, available from NTIS, and DIALOG bluesheets) can be distributed to those staff who perform online searching; more detailed instructional information for online searching is found in DIALOG's Government Documents Seminar workbook (DIALOG Information Services, Inc. 1984).

In addition, NTIS can be contacted directly about offering search training sessions for the NTIS Bibliographic Database. Such sessions might be made available on-site or organized for geographic regions.

User-Based Online Searching

The library might consider offering user-based online searching of the NTIS Bibliographic Database. Costs for the searching are reduced considerably if the library participates in BRS AFTER DARK or DIALOG's Knowledge Index. Both services offer access to the NTIS Bibliographic Database during evening and weekend hours at significantly reduced rates.

Regardless of whether the service is subsidized by the library or if users "pay as they go," this approach represents an excellent means to integrate online searching of NTIS into the information gathering behavior of the academic community. Basic searching tips can be made available to users and the service can provide an extraordinary opportunity for them to determine, for themselves, the breadth and usefulness of items included in the NTIS Bibliographic Database.

User-based online searching has a number of spin-off effects. First, after completing the search, patrons then go to the area of the library responsible for the NTIS materials (often with printout in hand) and attempt to obtain copies of the desired materials. Second, users provide word-of-mouth advertisement about the value of the service and the reports they obtained. Third, patrons complete their own bibliographic verification and obtain correct citations for NTIS materials. And, fourth, if the library does not have the specific report requested, the user receives order forms immediately and can purchase a copy of the report. Thus, the user becomes "self-sufficient" in the future for obtaining the desired NTIS materials.

Referral Systems

In-house referral systems can be developed to improve access to NTIS materials. Since most academic libraries have their NTIS collection and staff expertise located in one place, other departments must make proper referral. This is especially important in library systems with large number of branches. Branch staff must be aware of the appropriateness of NTIS materials for particular subject areas. There should be internal referral mechanisms that encourage effective communication within the library. For example, purchase of multiple or additional copies of key NTIS reference tools in the branch libraries may encourage in-house referral. Childers (1985) has offered a number of suggestions for developing and evaluating such referral mechanisms.

Copies of GRA&I

Many large academic libraries obtain a copy of GRA&I, free through the library's participation in the Government Printing Office (GPO) depository library program. If the library participates in the depository program but has not selected receipt of GRA&I, it should consider doing so. If the library is not a depository, then purchase of GRA&I should be considered. Owning and using GRA&I is essential for:

- increasing staff and clientele awareness of NTIS materials;
- providing quick fact and bibliographic reference services related to NTIS materials; and
- encouraging patron self-sufficiency and ordering of NTIS materials.

But for those already obtaining one copy of the index, careful thought might be given to obtaining additional copies.

For example, in many academic libraries, GRA&I is maintained in the government documents area and other reference librarians and their clientele may be unaware that the index provides valuable access to research reports and data. Duplicate copies of GRA&I may be essential in libraries with broadly decentralized reference services. Unless reference staff have immediate access to the index, they are likely to forget its potential contributions in resolving information needs and may direct patrons elsewhere.

Directing patrons to use commercial indexes prescribes that they will probably not be made aware of research reported through NTIS. Such is true because the research reported to NTIS is often not indexed elsewhere and is generally isolated from the mainstream of scientific and technological information sources. While many articles/reports are included in multiple indexes, such is frequently not true for NTIS reports. Librarians must access these materials directly through GRA&I or the online database.[1]

Integrate NTIS Published Searches into the General Collection

Academic libraries might purchase and promote computer searches developed by information analysts with both education and experience in specific subject fields. Published Searches are available from the NTIS Bibliographic Database as well as over 20 other databases, including databases from the United Kingdom and Western Europe. Over 3,000 search titles are available and these bibliographies typically contain 100-200 citations each. A free Published Searches Master Catalog (see accompanying core collections guide) lists the topics that are available.

Topics of special interest or that meet particular research/curriculum emphases of the university can be obtained, cataloged, and included in the general collection. A note can be attached to the Published Search informing users that some of the titles listed may be available in that area responsible for retaining and servicing NTIS reports. Then, when patrons search the card catalog by subject and discover a Published Search, they will be led to that area of the library with the reports. They will also be alerted to where they can receive additional assistance.

This strategy indirectly integrates NTIS publications into the general collection. Generally, patrons using the card catalog will be unaware of NTIS materials and not realize that NTIS bibliographic records are excluded from the card catalog. Libraries can place signs in the book stacks; next to the card catalog, or scientific and other indexes; or in high-visibility subject areas. These signs would explain that:

> "Additional information on this particular topic can be obtained in NTIS reports, located in the ____________ area of the library."

Handouts and Guides

The easiest strategy is to develop handouts, guides, brochures, or other material that will familiarize patrons with NTIS services and products. These aids placed in strategic positions throughout the library could explain:

- how to conduct a search in GRA&I;
- how to conduct a basic search of the NTIS Bibliographic Database online
- how to order NTIS publications and provide copies of sample order forms;
- basic NTIS reference tools; and
- how to request NTIS materials through interlibrary loan.[2]

Handouts and guides developed in-house could draw upon brochures and other informational matter from NTIS, such as the General Catalog.

Signage and Displays

Another easy strategy to promote NTIS materials is to place appropriate signs describing NTIS materials and how to access them, throughout the library. For example, the signs might:

- indicate that NTIS reports are not included in the card catalog and that the patron must consult GRA&I or reference staff to access these materials;

---

[1] Some of the material listed in GRA&I is duplicated in EPA Publications Bibliography Energy Research Abstracts and Scientific and Technical Aerospace Reports (STAR). Further, defense-related technical reports are available through the Defense Technical Information Center (DTIC) and NASA-RECON. However, access to these two databases is restricted to organizations with current defense-related contracts or appropriate security clearance to search the database.

[2] Interlibrary loans should be directed to other libraries and not to NTIS as the agency does not participate in the program.

- provide clear instructions on where NTIS materials are located in the library;
- display a blow-up representation of a typical entry from GRA&I with an explanation of the component parts of that entry; and
- explain procedures for loading/operating microfiche readers, reader/printers, and fiche-to-fiche duplicators.

Other signs and explanations may be necessary depending on how particular libraries organize and retrieve NTIS materials.

Many libraries use displays -- bulletin boards, shelving for "new books" or "recent arrivals." Such displays increase the visibility of NTIS materials and products to both library staff and clientele. The types of displays possible are limited only by one's imagination, and there is virtually no direct cost for implementing this strategy, once the shelving or bulletin boards are in place.

Library Promotion Handbook (Edsall, 1980) is an excellent source for ideas and assistance in the development of signs, displays, and overall promotional techniques. The basic question that library staff should address is:

> "If patrons require government-sponsored research reports, would they be made aware that the library has such sources, would they be able to identify where those sources are indexed and physically located, and would they know how to access or order them without having to ask a library staff member?"

Promoting NTIS Materials Outside the Library

Librarians need to promote NTIS materials outside the library. Since a significant portion of the academic community may not come to the library and use in-house services, clientele have to be attracted by "outreach" services promoting NTIS materials and encouraging them to take advantage of services offered within the library.

Faculty/User Profiles

Earlier, it was suggested that library staff identify faculty, departments, and organized research units that might be interested in the types of materials found in an NTIS collection. Once these groups have been identified, the staff can develop a profile of their information needs, in terms of:

- specific subject areas and topics; and
- types of material of interest, i.e., reports, conference papers, software, and data files.

On a regular basis, staff can search either the NTIS Bibliographic Database or GRA&I as well as FEDRIP to identify appropriate materials. Microcomputer software such as database managers can be used to maintain and update such profiles, sort the profiles, and produce mailing labels to disseminate the search results (Pasterczyk, 1985).

Profiles of faculty interests can be developed, saved on diskette, and run on a regular basis -- say once a month. Copies of abstracts for the items produced could be circulated to individual faculty members. These abstracts can indicate if the library has the particular report or if the faculty need to order it from NTIS. In the latter instance, staff can distribute blank order forms along with the abstracts. In designing such profiles, it is important to determine if the individual prefers a broad coverage of topics (high recall), or only those items of specific interest (high precision).

Since organized research units in the university comprise an especially important target audience for many NTIS services and products, library staff might start their profile development here. Not only do these units have a clear interest in current research reports, but they may have budget lines to purchase materials (such as NTIS reports) as part of project expenses.

Current Awareness Newsletters

A similar strategy for developing profiles of individual faculty members, departments, or organized research units, is to obtain newsletters that stress current research reports for broad areas of interest. NTIS produces Abstract Newsletters in 26 broad subject areas (see Part II) which announce new reports. Library staff can review the titles that appear to be appropriate and route summaries of these reports to departments likely to need them. A review of the twice-monthly issues of GRA&I can serve the same purpose as reviewing the weekly Abstract Newsletters, except that GRA&I will not be as up-to-date and readers must negotiate more diverse subject coverage.

Libraries can develop newsletters and current awareness services that highlight recent acquisitions by subject area. The inclusion of NTIS titles, along with monographs, government publications, etc., underscores the diversity of materials held in the library and applicable to different information needs.

Generally, newsletters comprise an important means of keeping faculty and graduate students informed about:

- new research reports likely to be of interest to them;
- new methods for searching and accessing the technical report literature; and

- developments/services in the library which can assist them in gaining access to NTIS materials.

Edsall (1980, pp. 86-91) offers practical suggestions for the design and content of newsletters. With the advent of microcomputers in many academic libraries, it is relatively simple to utilize word processing and maintain a software program of mailing labels to disseminate these newsletters on a regular basis.

Seminars and Personal Visits to Faculty

As suggested earlier, the most effective means for educating users occurs within the context of resolving a particular information need. Thus, librarians may wish to meet individually with targeted researchers and discern their specific information needs and those of their students, as well as ascertain how NTIS materials can meet those needs. A worksheet such as that suggested in Figure 4 can be used for this purpose as well as assisting in the development of faculty profiles.

Based on these discussions and a review of the information needs described, library staff can develop seminars that discuss how the library can best meet particular research needs. These seminars should be short, practically based, and well organized. Staff should provide handouts and other summary material on the topics covered, and demonstrate an attitude of interest and concern for user needs. They should also demonstrate how specific products and services can resolve a particular information need -- preferably one of some importance to seminar participants. The purpose of these seminars is to establish a personal working relationship with individual faculty members and target departments and research units. Meeting this goal necessitates that staff leave the library and work directly with faculty in their offices or departmental conference rooms.

Promote NTIS Services and Products to the Local Business Community

Although the local business community is not typically considered as part of the academic library's community, the library can reap benefits from courting this group. For example, the library might receive gifts or the permanent loan of equipment. Some academic libraries have developed fee-based services especially to meet the information needs of local businesses. Many of the promotional, educational, and increased awareness techniques suggested previously can be applied to this important target audience.

The directories and catalogs created by NTIS' Center for the Utilization of Federal Technology (CUFT) are particulary useful. These publications are designed to link selected U.S. Government technologies and resources to U.S. businesses. They include the Directory of Federal Laboratory and Technology Resources, the Directory of Federal and State Business Assistance, the Federal Technology Catalog, the Catalog of Government Patents, and Tech Notes.

Developing an NTIS Service Plan

A number of individual strategies have been suggested to increase access to and awareness of NTIS information services and products. But, the best overall strategy is to develop, consciously, a written plan of services. Riggs (1984) has discussed strategic planning for libraries, and Usherwood (1981) offers an introduction to developing a plan for public relations and promotion. To successfully promote NTIS services and products, librarians may wish to develop a short, written, service plan. This plan should contain, minimally, four basic sections: service needs, objectives, programs, and evaluation.

Determine Service Needs

Services and programs that are most effective will be those that are targeted to meet specific identified needs. Therefore, librarians should assess the needs of clientele for specific NTIS information services and products. For example, the worksheet provided in Figure 4 represents one method of better understanding the needs of faculty. Similar data collection instruments can be used for other target audiences in the academic and local community.

Determining service needs may involve a formal process of developing questionnaires and other data collection instruments, collecting data, and analyzing the data to address specific objectives, research questions, and/or hypotheses. Or, the assessment may be accomplished more informally by talking with various clientele, considering recent experiences in working with patrons, and asking for opinions from other staff members. The danger of assessing service needs informally, however, is that the staff may not adequately assess the needs of non-users and may not analyze existing assumptions about what clientele need or do not need.

A needs assessment should consider the opportunities and needs within the library. A "WOTS up" exercise (weaknesses, opportunities, threats, and strengths) is an excellent method to brainstorm the overall context of needs (Steiner, 1979, pp. 142-147). Based on an assessment of clientele service needs and the organizational context to respond to these needs (the WOTS up exercise), specific service objectives are developed.

Establish Objectives

The purpose of establishing service objectives is to clarify exactly what will be done to increase access to and awareness of NTIS materials over a given time period. Service objectives should be:

- time limited;
- measurable;
- feasible;
- described in terms of what is to be done and not why or how it is to be done; and
- targeted at clearly identifiable user groups.

The fourth criterion is especially important. Statements that address how something is to be done are typically at a program level (see next section). Examples of service objectives are:

- publish a monthly newsletter for faculty in the engineering department during 1987;
- increase the number of off-site bibliographic instruction seminars for engineering graduate students by 25% during 1987; and
- hold monthly in-service training sessions for branch reference librarians on NTIS products and services during 1987.

These three objectives are not comprehensive, but are, rather, suggestive. There is no need to have an extensive list of objectives. The librarians responsible for the NTIS collection could establish a couple of objectives, per year, and accomplish them. Establishing specific objectives is essential prior to successful implementation of programs.

Implement Programs

Programs simply are a set of steps to realize stated objectives. In some instances, one program of activities may accomplish two or more objectives. Previous sections of this guide have suggested a number of possible programs. Library staff typically brainstorm possible programs and review the results from a service needs assessment and the WOTS-up exercise. Based on these techniques, a number of possible programs can be listed, compared and contrasted, and assessed for which ones are likely to have the greatest impact at the least cost. Hernon and McClure (1984, pp. 275-298) provide additional detail on how these activities can be accomplished.

The easiest method for developing and implementing programs is to complete a Tasking Chart such as that represented in Figure 5. The chart clarifies what specific steps will be taken to accomplish the objective, who will be responsible for these steps, and when each step is to be initiated and completed. Use of the Tasking Chart ensures that everyone knows what will occur, who is responsible, and when a task will be performed. Further, by listing the individual steps that need to be done to accomplish the objective, the overall feasibility of the program is "pre-tested". If the steps to implement the program are difficult to determine, are too complex, or require too many resources, then perhaps staff should develop a different program.

Evaluation

An evaluation component must be included in the plan, and can be done at a low or high level of effort depending on the available time and resources to commit to the evaluation. Primarily, evaluation:

- assesses the degree to which objectives are accomplished;
- identifies ways to improve program effectiveness or efficiency; and
- determines if the program should be continued.

Measures are developed to assess stated objectives. For example, in one of the example service objectives previously mentioned, the measure is "number of seminars given." To accomplish this objective, the library staff would have had to increase the number offered from, say, 12 to 15 per year.

Such a measure examines the activity but not the quality of the seminars. Thus, at the end of the seminars, the instructor might ask for participants to list three factors that contributed to the success of the seminar and three factors that might be improved the next time the seminar is offered. Evaluation of the success of a program should include both qualitative and traditional measures.

When staff assess the success in providing access to and awareness of NTIS materials and products, they should consider the measures used to accomplish objectives and some of the more intuitive and intangible factors that either contributed to or hindered the success of the programs. Based on this assessment, they can develop a new plan for the next planning cycle.

Overview

Figure 6 outlines a form for the development of a written plan. It offers a model of the major factors that should be included in a written plan to increase access to and awareness of NTIS services and products. A written plan documents the library's activity in a particular area. Further, it demonstrates accountability on the part of the library staff.

Planning for which clientele service needs are going to be met is essential. Typically, academic librarians have more service needs than they attempt to meet. The critical questions therefore become:

- which service needs are most important?
- which ones can be realistically met?

- what programs should be developed to meet these needs? and
- how will the staff know when, in fact, they have met a particular need?

The use of a formalized planning process assists the staff in answering these questions.

Increasing the Use of NTIS Materials

Regardless of the potential value of the materials that NTIS distributes, if academic librarians and the academic community are unaware of them, they will neither collect nor use these sources. The suggestions mentioned in this guide serve as a catalyst to encourage academic libraries to develop strategies for the collection of NTIS sources and the exploitation of those sources already contained in the collection. Although the strategies have been suggested separately, many clearly reinforce one another. For example, strategies to promote the use of NTIS materials within the library will also educate faculty and students.

Academic libraries need to develop a comprehensive plan to better promote access to and use of NTIS materials; this plan should combine strategies that:

- best meet the identified needs of library clientele;
- are most appropriate for that particular library; and
- require the use of available resources.

While all the strategies identified in this guide may not be appropriate for a particular library, many of them can be used in virtually any academic library setting. The more such strategies are implemented, the better the university can meet its research and educational missions and the librarians can enhance the productivity of researchers.

Figure 1

Filters Affecting Academic and Public Library Provision of NTIS Information Services and Products[1]

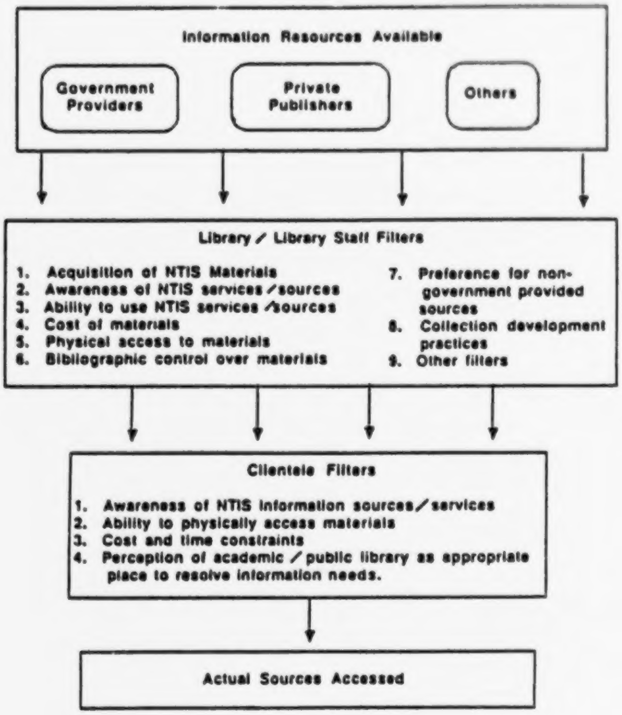
Information Resources Available
Government Providers
Private Publishers
Others
Library / Library Staff Filters
1. Acquisition of NTIS Materials
2. Awareness of NTIS services / sources
3. Ability to use NTIS services / sources
4. Cost of materials
5. Physical access to materials
6. Bibliographic control over materials
7. Preference for non-government provided sources
8. Collection development practices
9. Other filters
Clientele Filters
1. Awareness of NTIS information sources / services
2. Ability to physically access materials
3. Cost and time constraints
4. Perception of academic / public library as appropriate place to resolve information needs.
Actual Sources Accessed

Figure 2

Basic Steps to Increasing Access to and use of NTIS Information Sources and Products

1. Develop a Knowledge Base
   - review NTIS descriptive brochures
   - review online search guides for NTIS database
   - review and examine sample NTIS products

2. Consider Key Questions
   - has the library developed a policy statement on the role and value of NTIS services and products?
   - what degree of bibliographic control should be established?
   - what type of support should the library provide for patron use of microfiche?

3. Develop NTIS Collections
   - establish collection development policy statements
   - participate in the SRIM service
   - review the collection and purchase core collection titles, as needed

4. Increase Awareness
   - educate library staff
   - educate students
   - educate faculty

5. Promote NTIS Materials Within the Library
   - online database searching
   - user-based online database searching
   - within-library referral systems
   - copies of GRA&I
   - NTIS Published Searches
   - handouts and guides
   - signage and displays

6. Promote NTIS Materials Outside the Library
   - faculty user profiles for current awareness services
   - current awareness newsletters
   - seminars and personal visits to faculty
   - promote NTIS services and products to local business community

7. Develop a Service Plan
   - determine service needs
   - establish objectives
   - implement programs
   - evaluate and refine programs and service objectives

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[1] Source: McClure, Hernon, and Purcell (1986), p. 132.

Figure 3

Assessment of Existing Microfiche Facilities

A. Description of Microfiche Equipment

Equipment	Number	Operating Condition
Readers (non-movable)		
Readers (portable)		
Reader/Printers		
Fiche-to-Fiche		
Duplicators		

B. Storage Cabinets

Equipment	Number	Storage Capacity	Operating Condition
Fiche Cabinets			
Storage for supplies			

C. Study Carrels

Number	Seating Capacity	Condition

D. Microfiche Viewing Area

Provide a general description of the area in terms of size, number of users it can hold, workspace, comfort, access to library staff assistance and the NTIS microfiche, and lighting control.

E. Climate Control

Provide a general description of the temperature and humidity levels where the microfiche is to be stored, the use of acid-free storage units and separators, and the heat levels in the viewing areas (they tend to become too warm while in use).

F. Staffing

Staff Available to Provide Assistance	Time of Day(s) Available	General Knowledge of Microfiche/Equipment
1.		
2.		
...and so forth		

G. Needs

Based on the above information, provide an assessment of any needs related to equipment, storage, study carrels, the viewing area, climate, or staffing.

Figure 4

Worksheet to Assess Faculty Needs Related to Technical Report Literature

Faculty Name:____________________________

Department:____________________________

Courses Taught:

Name of Course	Level of Instruction
1.	
2.	
3.	
4.	

Brief Description of Primary Research Areas:

1.____________________________

2.____________________________

3.____________________________

Recent Research Publications:

1.____________________________

2.____________________________

3.____________________________

Recent Funded Research Projects:

1.____________________________

2.____________________________

Assessment of Faculty Needs and Possible Strategies to Meet Those Needs:

____

____

____

____

Figure 5

Tasking Chart

	Task	Person	1	2	3	4	5	6	7	8	9	10	11	12
1.														
2.														
3.														
4.														
5.														
6.														
7.														
8.														
9.														
10.														
11.														
12.														
13.														
14.														
15.														
16.														
17.														

Notes and explanations:

Figure 6

Example Outline for a Written Services Plan

A. Needs

1. Summary of information needs for specific groups of library clientele:

2. Summary of results from the WOTS up Exercise
   a) institutional and departmental weaknesses

   b) opportunities for new initiatives

   c) threats to the success of current operations or new initiatives

   d) institutional and departmental strengths

B. Service Objectives

1.

2.

3.

C. Programs
(use Tasking Chart as shown in Figure 5)

1. Program(s) for Objective #1

2. Program(s) for Objective #2

3. Program(s) for Objective #3

D. Evaluation

1. Method by which the objectives and programs will be evaluated

2. Results of the evaluation (to be completed at the end of the designated planning cycle)

3. Recommendations for continuance of the program, revision of the objectives, or other factors/needs related to increasing access to and awareness of NTIS information sources and services (to be completed at the end of the designated planning cycle)

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Part II: NTIS Library Core Collections: A Bibliographic Guide

Introduction

The concept of core collections recognizes that the mission, goals, and objectives of libraries are not all the same. Further, collection development takes place within a subject context and new titles may become part of the core and perhaps displace those already on the list.

The enclosed list represents the "first attempt" to develop a core list of NTIS distributed titles. The list should be periodically reviewed and revised as necessary.

The procedure for updating the core list should be as follows:

- whenever NTIS issues a new reference title having widespread appeal, that source should be added to the list;
- NTIS can periodically compare its quarterly list of best sellers to the enclosed core list, and make additions or deletions to the list as necessary;
- titles currently on the core list may become outdated and superseded by a newer edition; that edition should be inserted as a replacement;
- since the titles on the core list have been assigned a media code, NTIS can monitor sales patterns based on the list and make adjustments to that list as deemed necessary;
- the Liaison Network should be asked to review the list periodically and notify the Director, Office of Customer Services, NTIS, of any suggestions for additions or deletions. This review enhances the utility of the list and expands the selection options for a subject category;
- NTIS can examine its sales records for various subject fields and expand the preliminary core listings provided in this manual; and
- the instructors of science/technology, reference, and government documents courses in accredited library schools should be asked to review the list and offer recommendations for titles to add or delete.

By following the steps outlined above, NTIS can develop and maintain a current list of core titles having widespread utility to the library community. Such a list (regularly revised) should be widely distributed to libraries and will reflect the diverse types of source material provided by NTIS.

NTIS Core Collections

This list of titles distributed by the National Technical Information Service reflects high sales, high visibility, and high use items. Against this background, the titles included in this bibliographic guide were selected according to whether or not they met one or more of the following criteria. They must:

- include both reference and non-reference titles, as well as different distribution formats;
- be among those represented on NTIS' various lists of high sales items;
- be included in recently issued NTIS sales brochures and bibliographies;
- represent those included in recent (1985-1986) issues of Government Reports Announcements & Index as having potentially high visibility and as superseding outdated editions;
- represent works reviewed and often cited in the professional literature; and
- reflect those suggested by an Advisory Board, composed of academic and other librarians, as well as other librarians who have examined the list.

Although the focus is on core titles for the collections of academic libraries, the list clearly has a broader utility -- a guide for any library collecting informational resources on topical areas such as those displayed in this guide.

Where readily identifiable, the list includes the OCLC number for a title. It also mentions availability in the Monthly Catalog of United States Government Publications (Government Printing Office).

The subject terms, except for the "General Titles" were derived from the NTIS subject category codes used for production of Abstract Newsletters and the NTIS Bibliographic Database. As of January 1, 1987, this category scheme will also be the primary scheme used in the NTIS Government Reports Announcements & Index Journal.

As an aid to users of the guide, subject categories are subdivided into reference and non-reference titles, as appropriate. The sources listed include paper copy, microfiche, floppy diskettes, and magnetic tapes. Except for sources listed as "General Titles," a title may be listed more than once, depending on its perceived importance to a particular subject category.

If a library discovers that a particular subject area has particular significance to its collection development priorities, it should contact NTIS and develop a SRIM profile. This would provide automatic distribution of new full-text reports on microfiche on a current basis and at a fraction of the cost.

The list of core collections includes price codes for each title, see the order form at back for a translation of a code into the actual price. Other addressees should write for brochure PR-360-4.

For additional titles distributed by NTIS, libraries should consult Government Reports Announcements & Index, Abstract Newsletters, or the NTIS Bibliographic Database.

Based on this bibliographic guide, libraries can review their collections and identify examples of basic source material being disseminated by NTIS. A review of GRA&I or the NTIS Bibliographic Database will offer additional examples of potentially useful titles. Library staff might also review NTIS Abstract Newsletters and other basic sources identified in this guide.

The list represents a first time effort to identify core titles. Therefore, readers will undoubtedly discover additional titles and subject terms meriting inclusion. Suggestions for additions should be shared with the Director, Office of Customer Services, NTIS.

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GENERAL TITLES

Reference

Abstract Newsletters (National Technical Information Service, weekly)

By Category Number, these are:

70 Administration and Management (OCLC 05694757)
98 Agriculture and Food (OCLC 02254016)
92 Behavior and Society (OCLC 01001847)
95 Biomedical Technology and Human Factors Engineering (OCLC 03457716)
89 Building Industry Technology (OCLC 03457815)
96 Business and Economics (OCLC 01640633)
99 Chemistry (OCLC 02575951)
50 Civil Engineering (OCLC 03457748)
45 Communication (OCLC 02361082)
62 Computers, Control and Information Theory (OCLC 01779127)
49 Electrotechnology (OCLC 02575980)
97 Energy (OCLC 02361900)
68 Environmental Pollution and Control (OCLC 01001804)
39 Foreign Technology (OCLC 09923668)
90 Government Inventions for Licensing (OCLC 02575990)
44 Health Planning and Health Services Research (OCLC 05685794)
88 Library and Information Sciences (OCLC 02252057)
41 Manufacturing Technology (OCLC 09923617)
71 Materials Sciences (OCLC 01001815)
57 Medicine and Biology (OCLC 02576156)
48 Natural Resources and Earth Sciences (OCLC 0345774)
47 Ocean Technology and Engineering (OCLC 02576182)
46 Physics (OCLC 025761333)
43 Problem-Solving Information for State and Local Governments (OCLC 02576086)
85 Transportation (OCLC 02575895)
91 Urban and Regional Technology and Development (OCLC 02771696)

This weekly current awareness subscription series provides easy-to-scan access to U.S. and foreign Government technical reports available from NTIS.
Contact NTIS for price quote on Abstract Newsletters. Annual indexes for the Abstract Newsletters are available. The newsletters are included in the Monthly Catalog under Item Number 188-A-1, but are not available for either depository distribution or the GPO sales program. They are included in the OCLC database (11694308).

Bibliography of Appropriate Technology Information for Developing Countries: Selected Abstracts from the NTIS Data File (4th ed.) (National Technical Information Service, 1983).
This report was created to support the transfer of useful technology to developing countries. An edited search of the NTIS Bibliographic Database was performed to locate appropriate technology. Appropriate technology has been broadly defined as information which can be adapted and applied to help solve local development problems of lower income groups.
PB83-113852/GBJ (PC)$7.50 (MF)A01
Included in the Monthly Catalog under Item Number 271 (microfiche). The OCLC number is 09522743.

Government Reports Announcements and Index (National Technical Information Service, twice monthly).
This is the twice-monthly indexing and abstracting service that identifies source material distributed by NTIS.
PB86-900100/GBJ $379.00 North America; others write for price quote.
There is an additional cost for the hardbound annual index
NTISANNI85 $479.00 North America; others write for price quote.
This service is included in the Monthly Catalog under Item Number 270. The OCLC number is 02242215.

NTIS Digest (National Technical Information Service, 1986).
Each issue highlights the value of the NTIS collection to particular fields. For example, one issue focuses on health and health-related subjects. It announces various NTIS services and information resources that would be beneficial to health care professionals.
PR-745/86/GBJ Free

NTIS Published Searches: New Master Catalog (National Technical Information Service, 1986).
The Published Searches are bibliographies containing full bibliographic citations developed by information specialists in subject areas most frequently requested by NTIS customers. This master catalog lists the current titles available.
PR-186/GBJ Free catalog
Published Searches are irregularly covered in the depository program under Item Number 188-A-4.

NTIS Title Index (National Technical Information Service).
The microfiche index covers 1985 and 1986, and enables quick searching of NTIS publications by keyword out of context, author, and report/accession number. See also PB84-916099/GBJ.
PB85-916000/GBJ (MF) only
A quarterly two-year cumulation of new publications for 1985-1986 is available now as a subscription for $350. The Retrospective Index, PB80-139900/GBJ, includes indexes for 1964-1978 and costs $700. The Retrospective Index Package, PB84-916098/GBJ, contains all completed two-year current indexes through 1984 as well as the Retrospective Index and costs $900.

Tech Notes Service (National Technical Information Service, 1986).
Prepared by various agencies, one to two-page fact sheets present selected U.S. Government technologies determined to have practical or commercial application. This monthly subscription highlights new processes, equipment, software, materials, and processes.
PR365/745/GBJ Free brochure

GENERAL LIBRARY AND INFORMATION TITLES

Reference

Catalog of Government Patents: Inventions Available for Licensing to U.S. Businesses (National Technical Information Service, 1986).
(See full record under BEHAVIOR AND SOCIETY/ BUSINESS AND ECONOMICS)

Catalog of the National Energy Software Center (National Technical Information Service, 1984).
It lists machine-readable computer programs compiled in cooperation with the National Energy Software Center and the Department of Energy's Software Exchange and Information Center.
PB84-906299/GBJ (PC)$25.00 (MF)$25.00

CHEMLINE: Chemical Dictionary Online User's Guide (National Library of Medicine, 1985).
This is the user's guide to CHEMLINE, an online, interactive chemical dictionary file. CHEMLINE provides a mechanism whereby information on over 1,000,000 chemical substance names and corresponding CAS Registry Numbers representing over 525,000 unique substances can be searched and retrieved online.
PB86-118452/GBJ (PC)$8.00 PC only
Also available in set of three reports:
PB86-118429/GBJ (PC)$16.00 PC only

Codes for Named Populated Places, Primary County Divisions, and Other Locational Entities of the United States: Guidelines (National Bureau of Standards, 1982).
It provides numeric codes for the complete file of incorporated places, census designated places, townships, census county divisions, and Indian reservations in the United States and its territories. The file also includes military bases, airports, and transport points.
FIPS PUB55/GBJ (PC)E15 (MF)E15
Included in the Monthly Catalog under Item Number 248-D. The OCLC number is 10616577.

Codes for Named Populated Places, Primary County Divisions, and Other Locational Entities of the United States (FIS PUB 55), 8th Update (National Bureau of Standards, 1986).
This update of the Federal Information Processing Standard covers the fifty states, the District of Columbia, and all outlying territories with significant self-administration. It lists incorporated places, census designated places, primary county divisions, recognized Indian reservations, Alaska Native villages, and other units as well.
PB86-154002/GBJ (CP)T02 Magnetic Tape

Computer Sciences Microthesaurus: A Hierarchical List of Indexing Terms Used by NTIS (National Technical Information Service, 1981).
This microthesaurus integrates hierarchically the vocabulary of selected thesaurus, as well as the key words developed specifically by NTIS. It allows easy retrieval of terms in computer sciences.
PB80-207814/GBJ (PC)E04 (MF)E04

Corporate Author Authority List (National Technical Information Service, 1983).
It serves as a standard for corporate author entries for NTIS, and includes both main entries and cross references.
PB83-156034/GBJ (PC)$175.00 PC only
Included in the Monthly Catalog as Item Number 188-A-13. The OCLC number is 10107439.

COSATI Corporate Author Headings (Clearinghouse for Federal Scientific and Technical Information, 1970).
This list of corporate author headings contains extensive cross references and conforms to standard cataloging rules.
PB-198275/GBJ (PC)$58.95 PC only

COSATI Subject Category List (Federal Council for Science and Technology, 1964; National Technical Information Service, 1982).
The list provides a basis for the subject grouping of reports for announcement and distribution purposes and for general categorizing and indexing. There are 22 broad subject fields and 178 groups. Scope notes and cross references are provided.
AD-612200/GBJ (English version) (PC)A04 (MF)A01
PB82-129909/GBJ (Spanish version) (PC)A05 (MF)A01

DDC Retrieval and Indexing Terminology . . . Posting Terms with Hierarchy and KWOC (Defense Documentation Center, 1979).
It displays the agency's controlled posting term vocabulary. This vocabulary is supplemented by

assigned identifiers and open- ended terms to form the basis for indexing DDC's scientific and technical literature.
AD-AO68500/GBJ (PC)A17 (MF)A01

The Directory of Federal Laboratory and Technology Resources: A Guide to Services, Facilities, and Expertise, 1986-1987 (National Technical Information Service, 1986).
Federal agencies, laboratories, and engineering centers were surveyed to locate those government laboratories, services, and facilities which have the equipment or resources to directly assist the academic and business communities. The organizations listed were selected for their ability to offer technological assistance whether through the sharing of expertise, equipment, and facilities, or as a reference for information. The more than 900 resources listed offer a variety of know-how and services. Descriptions of more than 90 government-operated technical information centers are also described.
PB86-100013/GBJ (PC)$29 PC only

A Directory of Federal Statistical Data Files (National Technical Information Service, 1981).
It provides descriptive information on the existence, location, and acquisition of data released by the Federal government in machine- readable form.
PB81-133175/GBJ (PC)$25.00 (MF)$25.00
It is included in the Monthly Catalog under Item Number 0188-A-09

Energy Database: Corporate Author Entries (Department of Energy, 1984).
One way to locate the results of DOE funded research is to find the reports in the Energy Data Base and in the publications derived therefrom by referring to the corporate organization performing the research. This reference aid assists in tracking the research process.
DE84-003877/GBJ (PC)$33.50 (MF)A01

Energy Database: Serial Titles with ISSN Listing (Department of Energy, 1984).
This issue of Serial Titles includes ISSN numbers for journals. It can be a useful tool in establishing the precise journal by ISSN and CODEN indication, especially for journals with the same title published in different locations.
DE84-003876/GBJ (PC)$42.25 (MF)A01

Energy Database: Subject Categories with Scope Definitions and Limitations (Department of Energy, 1983).
This document assists those people who assign category numbers to documents entered into the Technical Information Center, those processing magnetic tape copies of the files, those doing online searching for information in the TIC files, and those who do not have access to RECON and need a printed copy.
DE83-008754/GBJ (PC)A04 (MF)A01

Energy Database: Subject Thesaurus (Department of Energy, 1984).
The Office of Scientific and Technical Information, DOE, develops and maintains a standardized vocabulary for indexing scientific and technical information. This listing alleviates the problems of entry to a large thesaurus containing single and multiword descriptors.
DE84-010568/GBJ (PC)$45.00 (MF)A01
Included in the Monthly Catalog under Item Number 429-T-31.

Energy Database: Subject Thesaurus Permutated Listing (Department of Energy, 1984).
See the above entry: DE84-010568/GBJ
DE84-016963/GBJ (PC)$15.00 (MF)A01
Included in the Monthly Catalog under Item Number 429-T-31 (microfiche).

Energy Microthesaurus: A Hierarchical List of Terms Used by NTIS (National Technical Information Service, 1976).
It integrates hierarchically the vocabulary of thesauri from the Department of Defense, Energy Research and Development Administration, NASA, and NTIS. In so doing, it provides easy retrieval for energy terms.
PB-254800/GBJ (PC)E06 (MF)E06

Environmental Microthesaurus: A Hierarchical List of Indexing Terms Used by NTIS (National Technical Information Service, 1977).
It integrates hierarchically the vocabulary of thesauri from the Department of Defense, Energy Research and Development Administration, NASA, and NTIS. In so doing, it provides easy retrieval for environmental terms.
PB-265261/GBJ (PC)E06 (MF)E06
Included in the Monthly Catalog under Item Number 271.

EPA Publications Bibliography Quarterly Abstract Bulletin (Environmental Protection Agency, 1985).
The EPA Cumulative Bibliography 1970-1976 published in 1976 (order number PB265920) contains a bibliographic citation with abstract for reports generated by EPA and its predecessor agencies and entered into the NTIS collection through 1976. Beginning in March 1977, quarterly update supplements were published listing and indexing EPA technical reports and journal articles entered into the NTIS collection during the preceding quarter.
PB86-904200/GBJ Subscription

Federal Technology Catalog, 1985: Summaries of Practical Technology (National Technical Information Service, 1985).
The catalog presents summaries of practical technology selected for commercial potential and/or promising applications to computer technology, electrotechnology, energy, engineering, life sciences, machinery and tools, manufacturing, materials, physical sciences, and testing and instrumentation.
PB86-116167/GBJ (PC)$25.00 PC only
Included in the Monthly Catalog under Item Number 188-A-11.

Government Acronyms and Alphabetic Organizational Designations Used in DTIC (Defense Technical Information Center, 1985).
This compilation is a guide to acronyms as assigned by the Defense Technical Information Center. The listing contains entries from the Department of Defense, Federal

Government, and foreign military organizations. The acronyms reflect reports processed in the DTIC collection.
AD-A161900/6/GBJ (PC)A12 (MF)A01

Grateful Med (National Library of Medicine, 1986).
Health professionals can use IBM-PC's or compatible machines equipped with a Hayes or compatible modem for virtually "automatic" searching of NLM's MEDLINE and CATLINE. Simply insert the Grateful Med software floppy disk and enter the search information on a simple format screen. The program automatically dials NLM via TELENET, TYMNET, or UNIMET; logs on; enters queries; retrieves citations; logs off; and transfers results to users' floppy disk. This automatic sequence keeps connect time to a minimum.
PB86-158482/GBJ (CP)$29.95 Diskette and User's Guide

Guidelines for Descriptive Cataloging of Reports (Commerce, Energy, NASA, Defense Information Cataloging Committee, 1985).
The guidelines constitute a revision of COSATI Standard for Descriptive Cataloging of Government Scientific and Technical Reports.
PB86-112349/GBJ (PC)A06 (MF)A01
Included in the Monthly Catalog as Item Number 188-A- 2.

Health Care Microthesaurus: A Hierarchical List of Indexing Terms Used by NTIS (National Technical Information Service, 1982).
It contains the hierarchical list of indexing terms used by NTIS for health care.
PB82-131715/GBJ (PC)E04 (MF)E04

The Integrated Library System (ILS): System Overview (National Library of Medicine, 1981).
For this mini-computer based system, all automated library functions are processed against a single master bibliographic file. The report describes the function which the system supports and outlines the system design from a technical viewpoint.
PB81-188039/GBJ (PC)A03 (MF)A01

Library Statistics of Colleges and Universities, 1979 Institutional Data (National Center for Education Statistics, 1981).
This report covers library transactions, expenditures, staff and salaries, and management data. Institutional data include control and type of institution, number of volumes and titles in stock, and number added, number of government documents and microforms held, and number of periodical subscriptions.
PB82-169087/GBJ (PC)A09 (MF)A01
Included in the Monthly Catalog under Item Number 466-A-03 (microfiche). The OCLC number is 01779122.

Library Statistics of Colleges and Universities: Trends 1968-1977, Summary Data 1977 (National Center for Education Statistics, 1981).
Trends in data on collections, operating expenditures, staff, circulation, and interlibrary loans are examined over a decade.
PB82-127275/GBJ (PC)A04 (MF)A01
Included in the Monthly Catalog under Item Number 466-A-03 (microfiche).

List of Serials Indexed for Online Users, 1986 (National Library of Medicine, 1986).
The publication provides complete bibliographic information on serials and symposium proceedings cited in three MEDLARS files: MEDLINE, Health Planning and Administration, and POPLINE.
PB86-148418/GBJ (PC)$10.00 (MF)A01
Included in the Monthly Catalog under Item Number 508-J. The OCLC number is 09199853.

Medical Subject Headings, Annotated Alphabetic List, 1986 (National Library of Medicine, 1985).
It provides alphabetic lists of all subject descriptors used by National Library of Medicine indexers and catalogers.
PB85-232627/GBJ (PC)$21.00 (MF)A01
Included in the Monthly Catalog under Item Number 508-E. The OCLC number is 06392946.

Medical Subject Headings -- Supplementary Chemical Records, 1986 (National Library of Medicine, 1986).
It contains the records of chemicals which have been mentioned in a significant way in journals indexed in MEDLINE. It provides more specific entries than those available in the printed MeSH. It also enables the users of Index Medicus to locate the chemical subject headings under which citations referring to a more specific chemical can be found.
PB86-122512/GBJ (PC)$27.00 (MF)$13.50
Included in the Monthly Catalog under Item Number 508-E. The OCLC number is 09379687.

Medical Subject Headings, Tree Annotations, 1984. Technical Notes, MEDLARS Indexing Instructions (National Library of Medicine, 1984).
Designed for medical indexers and searchers, MeSH Tree Annotations suggest the approach that an indexer or searcher should pursue to a given tree. It also advises a person of the special features to be aware of prior to indexing or searching.
PB84-120047/GBJ (PC)$10.00 (MF)A01
Included in the Monthly Catalog under Item Number 508-E. The OCLC number is 03864224.

Medical Subject Headings, Tree Structures, 1986 (National Library of Medicine, 1985).
All medical subject headings currently in use are arranged in a hierarchical manner showing relationships between broader and narrower terms.
PB85-232635/GBJ (PC)$16.00 (MF)A01
Included in the Monthly Catalog under Item Number 508-E. The OCLC number is 01778210.

MEDLARS Indexing Instructions, 1984 (National Library of Medicine, 1983).
This indexing guide is intended primarily for MEDLARS analysts and users
PB84-104298/GBJ (PC)$10.00 (MF)A01
Included in the Monthly Catalog under Item Number 508-D.

MEDLARS Indexing Instructions: Tumor Key Supplement, 1984 (Technical Notes)(National Library of Medicine, 1983).
This indexing guide gives the correct MeSH term for various histological types of tumors and cancers.
PB84-120039/GBJ (PC)$8.00 (MF)A01
Included in the Monthly Catalog.

MEDLARS Indexing Manual (Part 2) (National Library of Medicine, 1983).
It presents the rules governing the technical analysis and indexing of journals and monographs cited in Index Medicus and other MEDLARS products.
PB84-104280/GBJ (PC)$16.00 (MF)A01
Included in the Monthly Catalog under Item Number 508-K.

NASA Thesaurus (National Aeronautics and Space Administration).
It provides access to any word or number in authorized postable and nonpostable terms.

Volume 1: Hierarchical Listing (1985).
N86-20168/GBJ (PC) $35.00 PC only

Volume 2: Access Vocabulary (1982).
N83-10981/9/GBJ (PC)$20.00 PC only

Included in the Monthly Catalog under Item Number 830-J-7. The OCLC number is 12263791.

NHTSA/SASI Cooperative Thesaurus of Highway and Motor Vehicle Safety Literature Terms (National Highway Traffic and Safety Administration, 1973).
Terminology is presented for use in indexing literature for traffic and vehicle safety.
PB-226870/GBJ (PC)$31.00 (MF)A01

NLM Online Services Reference Manual, 1982 and Supplement, 1984 (National Library of Medicine, 1984).
See next abstract -- PB84-186808/GBJ.
PB84-186816/GBJ (PC)$21.00 (MF)E02
Included in the Monthly Catalog under Item Number 508-K.

NLM Online Services Reference Manual, Supplement, April 1984 (National Library of Medicine, 1984).
This comprehensive manual covers the operation of the various National Library of Medicine databases. It contains specific information on the modes of accessing these databases, the commands which may be used, techniques for searching them, etc.
PB84-186808/GBJ (PC)$10.00 (MF)A01
Included in the Monthly Catalog under Item Number 508-K.

NTIS Bibliographic Database Guide: A Reference Tool for Users of the National Technical Information Service Bibliographic Database, 1964-1986 (National Technical Information Service, 1986).
This third edition of the guide provides background material on the database which will be helpful to users of that database.
PR-253/GBJ Free brochure

NTIS Subject Classification ... (Past and Present) (National Technical Information Service, 1977).
NTIS uses the subject category schemes presented here to classify documents for its bibliographic services.
PB-270575/GBJ (PC)A05 (MF)A01
Included in the Monthly Catalog under Item Number 271.

Permuted Medical Subject Headings, 1986 (National Library of Medicine, 1985).
This document is a computer-generated display of all terms in the alphabetic list of NLM's MeSH, as well as all citation types, check tag, and geographic descriptors in the annotated alphabetic MeSH.
PB85-232643/GBJ (PC)$14.00 (MC)A01
Included in the Monthly Catalog under Item Number 508-E. The OCLC number is 03467406.

Publications of the National Bureau of Standards, 1984 Catalog (National Bureau of Standards, 1985).
This is an annual supplement to Special Publication 305. The latest edition lists the 1984 papers which reflect the results of NBS programs. Also included are those NBS papers published prior to 1984 but not reported in previous supplements of SP305.
PB85-245678/GBJ (PC)A19 (MF)A01
Included in the Monthly Catalog.

RTECS: Registry of Toxic Effects of Chemical Substances: User's Guide (National Library of Medicine, 1985).
This is the user's guide to RTECS, a single source document for basic toxicity information.
PB86-118437/GBJ (PC)$8.00 PC only

Social Science and Business Microthesaurus: A Hierarchical List of Indexing Terms Used by NTIS (National Technical Information Service, 1982).
This document integrates hierarchically the vocabulary of thesauri used by the Department of Defense, Department of Energy, NASA, and NTIS, as well as keywords developed specially by NTIS. It allows easy retrieval of social science and business terms.
PB82-100066/GBJ (PC)E04 (MF)E04

Source Header List (Defense Technical Information Center).

Volume 1: A through K (1981)
This is the first volume of the corporate source names in the database system of the Defense Technical Information Center.
AD-A115000/GBJ (PC)A99 (MF)A01

Volume 2: L through Z (1982)
This is the second volume of the corporate source names in the database system of the Defense Technical Information Center.
AD-A115001/GBJ (PC)A99 (MF)A01

Supplement 3 (1985).
This is the supplement to the two volume set. Together these works contain all the corporate source names in the DTIC database.
AD-A156100/0/GBJ (PC)A10 (MF)A01

Source Hierarchy List (Defense Technical Information Center).

Volume 1: A through H (1985).
This is the first of two volumes of an alphabetical listing of corporate authors as used for announcement of reports received in the Defense Technical Information Center. Former names of organizations are included and displayed below the current source name. Cross references direct the user for sub- element organizations to the major source level entry where they are also displayed. Major and subhierarchies are provided. This list is used in conjunction with and is not a replacement for DTIC's Source Header List. It displays only those source names from the Source Header List for which hierarchical linkages are pertinent.
AD-A156300/6/GBJ (PC)A99 (MF)E03

Volume 2: I through Z (1985)
This is the second of two volumes of an alphabetical listing of corporate authors as used for announcement of reports received in the Defense Technical Information Center.
AD-A156301/4/GBJ (PC)A99 (MF)E03

Standard Industrial Classification Manual, 1977 (for Microcomputers) (Department of Commerce, 1977).
It contains the records of the short or tabulation titles of 1,005 industries, 420 industry groups, 84 major groups. and 11 divisions. There are four files contained on 9 diskettes.
PB86-167566/GBJ (CP)T99 Nine Diskettes

TOXLINE: Toxicology Information Online: User's Guide (National Library of Medicine, 1985).
This is the user's guide to the TOXLINE database that covers toxicological information related to human and animal toxicity studies, effects of environmental chemicals and pollutants, adverse drug reactions and analytical methodology.
PB86-118445/GBJ (PC)$8.00 PC only
Also available in set of three reports: NLM (National Library of Medicine) Chemical and Toxicological Files, 1985)
PB86-118429/GBJ (PC)$16.00 PC only

United States Trademarks -- Applications (Patent and Trademark Office, 1985).
The microfilm set covers applications for U.S. trademarks.
PB85-913900/GBJ Standing Order
Microfilm: $19.50 per reel; for cost outside the North American Continent, write for price quote.

Water Resources Thesaurus, Third Edition, 1981 (Department of the Interior, 1980).
It provides a vocabulary for indexing and retrieving the literature of water resources research and development.
PB81-198376/GBJ (PC)A07 (MF)A01
Included in the Monthly Catalog under Item Number 603. The OCLC number is 7317607.

AERONAUTICS

Reference

FAA Statistical Handbook of Aviation, Calendar Year 1984 (Federal Aviation Administration, 1984).
Published annually, this report serves as a convenient source for historical data and to assist in evaluating progress. It covers major civil aviation activities and presents statistical information pertaining to the Federal Aviation Administration, the National Airspace System, airports, airport activity, etc.
AD-A162626/6/GBJ (PC)A10 (MF)A01
Included in the Monthly Catalog under Item Number 431-C-14. The OCLC number is 02707503.

Non-Reference

Aviation Noise Effects (Federal Aviation Administration, 1985).
This report summarizes the effects of aviation noise in many areas, ranging from human annoyance to impact on real estate values. It also synthesizes the pertinent research literature.
AD-A154319/8/GBJ (PC)A06 (MF)A01

AGRICULTURE AND FOOD

Reference

Agricultural Databases Directory (National Agricultural Library, 1985).
It provides a guide to those seeking electronic access to current agricultural databases from both private and public sources. It covers 428 separate databases.
PB86-120789/GBJ (PC)A12 (MF)A01
Included in the Monthly Catalog under Item Number 32-B-1. The OCLC number is 12732977.

Agricultural Statistics on Eastern Europe and the Soviet Union, 1960-80 (Economic Research Service, 1983).
This publication contains 110 statistical tables containing land use, farm machinery, fertilizer availability, crop production, livestock and poultry numbers, livestock products, population, and per capita consumption of selected foods from 1960 to 1980. Data are presented on Bulgaria, Czechoslovakia, the German Democratic Republic, Hungary, Poland, Romania, Yugoslavia, and the Soviet Union. Explanatory notes define the terminology and describe the statistical concepts applied to the data for each country.
PB84-122134/GBJ (PC)A07 (MF)A01

Agricultural Statistics on the People's Republic of China, 1949-82 (Economic Research Service, 1984).
This publication presents 63 tables containing agricultural statistics for the People's Republic of China. These tables

report land use; population; procurement prices; crop production, area and yield; agricultural product production; livestock inventory and slaughter; animal production; input availability; and quantity of imports and exports by commodity. Data are presented for both the national and provincial levels.
PB85-117513/GBJ (PC)A05 (MF)A01

Agriculture Chartbook (Economic Research Service, 1985).
Economic and agricultural trends are graphically presented in 278 charts that depict all significant aspects of agriculture. Charts showing trade data, cost of production figures, farmland numbers, and population trends round out the picture presented in the handbook.
PB86-143799/GBJ (PC)A05 (MF)A01
Included in the Monthly Catalog under Item Number 3. The OCLC number is 12980588.

Non-Reference

Conference on Environmental and Naturally Occurring Toxins in Animal Feeds and Grains Related to Animal Health (Food and Drug Administration, 1981).
Four comprehensive reviews on available published literature were prepared as monographs on certain toxins or subject areas in animal feeds and grains related to animal health. The reviews on specific toxins covered naturally occurring levels, toxicity, metabolism, mode of action, chemical properties, control, analytical methods and detection.
PB84-170471/GBJ (PC)E06 (MF)A01
Included in the Monthly Catalog under Item Number 499-D-2. The OCLC number is 10881918.

Conference on Mycotoxins in Animal Feeds and Grains Related to Animal Health Held at Rockville, Maryland on June 8, 1979 (Food and Drug Administration, 1979).
Four comprehensive reviews on the available published literature were prepared as monographs on the following mycotoxins in animal feed and grains related to animal health: Aflatoxin, Ochratoxin, Zearalenone, and T-2 Toxin and Metabolites. Each review covered natural occurrence levels, toxicity, metabolism, mode of action, chemical properties, control, analytical methods and detection. See also PB80-221773/GBJ.
PB-300300/GBJ (PC)A17 (MF)A01
Included in the Monthly Catalog under Item Number 499-D-2. The OCLC number is 6011378.

Conference on Mycotoxins in Animal Feeds and Grains Related to Animal Health Held at Rockville, Maryland on June 13, 1980 (Food and Drug Administration, 1980).
Four comprehensive reviews on the available published literature were prepared as monographs on mycotoxins in animal feed and gains, related to animal health. Each review covered natural occurrence levels, toxicity, metabolism, mode of action, chemical properties, control, analytical methods, and detection. See also PB300300/GBJ.
PB80-221773/GBJ (PC)A15 (MF)A01
Included in the Monthly Catalog under Item Number 499-D-2. The OCLC number is 07301921.

Farm Real Estate: Historical Series Data, 1950-85 (Economic Research Service, 1985).
Historical data on farm numbers, land in farms, and average dollar value of land and buildings are presented as well as building value, farm real estate debt, and farm real estate taxes per $100 value. All series are reported by state and by 48-state totals for 1950-85.
PB86-144532/GBJ (PC)A04 (MF)A01

Food Gaps and Surpluses in Developing Countries: Status, Trends, and Implications, 1967-88 (Economic Research Service, 1985).
Comparisons of trends in food production and consumption in 106 developing countries during 1967-80 are documented. These trends showed that deterioration in food coloric balances were more than twice as common as were incidences of expanding caloric surpluses or narrowing caloric gaps. Causes of intercountry differences in food self- sufficiency are identified.
PB85-170769/GBJ (PC)A02 (MF)A01
Included in the Monthly Catalog under Item Number 42-W-1. The OCLC number is 13576629.

BEHAVIOR AND SOCIETY

ADMINISTRATION AND MANAGEMENT

Reference

Federal Funds for Research and Development: Fiscal Years 1983, 1984, and 1985. Volume 33 (Detailed Statistical Tables) (National Science Foundation, 1985).
The tables present data on R&D activities of Federal agencies for the 1983-85 period. Historical series for major categories for the 1975-85 period are also given.
PB86-153699/GBJ (PC)A09 (MF)A01
Included in the Monthly Catalog under Item Number 834-N. The OCLC number is 5802765.

Federal Funds for Research and Development: Fiscal Years 1984, 1985, and 1986. Volume 34 (Detailed Statistical Tables) (National Science Foundation, 1985).
The tables present data on R&D activities of Federal agencies for the 1984-86 period. Historical series for major categories for the 1976-86 period are also given.
PB86-153681/GBJ (PC)A09 (MF)A01
Included in the Monthly Catalog under Item Number 834-N. The OCLC number is 5802765.

Getting Yours: A Publicity and Funding Primer for Nonprofit and Voluntary Organizations (Contact Center, Inc., 1983).
Guidelines are presented for nonprofit and voluntary agencies to generate both publicity and funding. Organizations are advised on how to handle media relations. Proposal writing is covered in detail. A variety of fund raising ideas are explored. Checklists and examples are

included throughout. The work also discusses funding sources and publicity.
SHR-0012684/GBJ (PC)A05 (MF)A01

Metropolitan Statistical Areas, 1983 (Office of Management and Budget, 1983).
All definitions were reconsidered in the course of this revision process, and certain terminology changes were also made. The previous term Standard Metropolitan Statistical Area was shortened to Metropolitan Statistical Area. The report lists and defines MSA and similar terms.
PB83-218891/GBJ (PC)A06 (MF)A01
Included in the Monthly Catalog under Item Number 154.

Non-Reference

Budget and Budget Title Files, FY87 (United States Government) (Executive Office of the President, 1986).
Fiscal year 1987 budget data file reflecting budget estimates contained in The Budget of the United States Government submitted by the President to Congress in February 1986. It covers master accounts, receipt accounts, and appropriation and receipt accounts.
PB86-165420/GBJ (CP)T02 Magnetic Tape

Budget Data and Title Files (U.S. Government), 1940-1990 (Office of Management and Budget, 1985).
Fiscal year 1986 budget data files used to produce the published budget document, Historical Tables, Budget of the U.S. Government, 1986. The data cover budget authority, budget receipts, outlays, surpluses or deficits, and Federal debt covering extended time periods.
PB86-100617/GBJ (CP)T02 Magnetic Tape

Improving Federal Productivity: An Inventory of Agency Examples (Department of Commerce, 1986).
As part of an effort to support the President's Productivity Improvement Program, the Organization and Structure Committee of the President's Council on Management Improvement and the Management Improvement Division of OMB jointly have collected descriptions of specific productivity improvements in various agencies. The information specifies what the improvement was, when it began, how the change was made, and the specific productivity gain.
PB86-137312/GBJ (PC)A04 (MF)A01

Trends in Industrial R&D Activities in the United States, Europe and Japan, 1963-83 (National Planning Association, 1985).
The paper examines the growth in industrial R&D activity in the United States in relation to R&D expenditures in Western Europe and Japan.
PB86-141371/GBJ (PC)A04 (MF)A01

BUSINESS AND ECONOMICS

Reference

Catalog of Government Patents: Inventions Available for Licensing to U.S. Businesses, 1985 (National Technical Information Service, 1986).
This annual catalog is published to bring businesses and entrepreneurs opportunities to license and market governmentowned inventions. Each invention is fully described.
PB86-116175/GBJ (PC)$29.00 PC only
Earlier editions are included in the Monthly Catalog as Item Number 188-A-10. The OCLC number is 07885671.

CIA Maps.

These maps cover all geographical areas and encompass different series. They may be included in PB86-928300/GBJ or other numbers in the 928000s series. Each series offers a reduction in price as a standing order; single copies are also available on request. Individual maps, not part of a technical report, usually are maintained as paper copy shelf stock. When the stock is depleted, they may or may not be available in microfiche or blowback copy, depending upon their legibility after filming.
Maps which are indexed by NTIS are listed in the NTIS Bibliographic Database and can be retrieved by using the descriptor MAP. However, NTIS does not index all the reports in its collection. Those reports received from the Defense Technical Information Center, NASA, and the Department of Energy's Office of Scientific and Technical Information are indexed by those agencies.

Directory of Federal and State Business Assistance, 1986- 1987: A Guide for New and Growing Companies (National Technical Information Service, 1986).
It describes more than 180 Federal and 400 state business assistance programs. These programs are designed to help new and growing companies compete more effectively in domestic and international markets.
PB86-100344/GBJ (PC)$19 00 PC only

Handbook of Economic Statistics (Central Intelligence Agency, 1985).
The handbook provides statistics for selected Non-Communist countries and all the Communist countries. In general, the data are for 1960, 1965, 1970, 1975, and 1980-1984. Data for the countries have been adjusted, when necessary, to achieve comparability and therefore may differ from data presented in the original sources.
PB85-928041/GBJ (PC)E09 (MF)A01
Included in the Monthly Catalog under Item Number 0856-A-04 (microfiche). The OCLC number is 04654549.

Information and Steps Necessary to Form Research and Development Limited Partnerships (Department of Commerce, 1984).
This document provides an overview of the structure, formation, and operation of research and development limited partnerships; this is a type of business organization that makes it possible to form syndicates for venture capital for research and development.
PB84-156058/GBJ (PC)A06 (MF)A01
Included in the Monthly Catalog under Item Number 128. The OCLC number is 10598276.

Market Share Reports Catalog (Industry and Trade Administration, 1986).
The publication provides the order numbers for the commodity and country series of the Market Share Reports issued by the U.S. Department of Commerce. The reports identify trends in the value of exports from each of those suppliers and the U.S. share of that trade for about 900 manufactured products sold in 100 country markets from 1975-1979.
PR-802/GBJ Free catalog

Small Business Guide to Federal R&D Funding Opportunities (National Science Foundation, 1986).
The guide provides scientifically and technically competent small businesses with information about opportunities for obtaining Federal funding for R & D activities.
PB86-100112/GBJ (PC)$12.50 (MF)A01
Earlier edition included in the Monthly Catalog under Item Number 834-P. The OCLC number is 09417091.

Standard Industrial Classification (SIC) Codes: Federal General Data Standard Representations and Codes (National Bureau of Standards, 1979).
This standard provides classifications, short titles, and codes for the industries represented.
FIPS PUB66/GBJ (PC)A03 (MF)A01
Included in the Monthly Catalog under Item Number 248-D. The OCLC number is 5462304.

The World Factbook (Central Intelligence Agency, 1985).
It contains data that the CIA, Defense Intelligence Agency, Bureau of the Census, and the Department of State provide on each country in the world. Most of the demographic, economic, and political data are current to January 1 of the year covered.
PB85-928017/GBJ (PC)E10 (MF)A01
Included in the Monthly Catalog under Item Number 856-A-7. The OCLC number is 07390695.

Non-Reference

All Communist Country Reports (Central Intelligence Agency. 1986).
The information reported in this standing order service is political, statistical, and economical in such areas as agriculture, metals, minerals, natural gas, oil, materials, and political, economic and military structures of Communist countries.
PB86-927900/GBJ Standing Order

Analysis of the Use of Regulation "A" for Small Public Offerings (Securities and Exchange Commission, 1982).
The study examines the role of Security Act exemptions in business financing, particularly with reference to smaller firms.
PB84-136662/GBJ (PC)A06 (MF)A01

China Reports (Central Intelligence Agency, 1986).
The information reported in this standing order service is political, statistical, and economical in such areas as agriculture, metals, minerals, natural gas, oil, and materials. Information on political, economic and military structures of Communist countries is given.
PB86-928200/GBJ Standing Order
Included in the Monthly Catalog under Item Number 1067-L.

Consumer Complaint Handling in America: Final Report (Technical Assistance Research Program, Inc., 1979)
This study investigated the complaint-handling practices used by Government, business, and private voluntary groups to resolve consumer problems, to investigate the adequacy of these systems, and to recommend improvements. This volume reports the study's findings and recommendations, and provides a How-to-Do-It Manual for implementing cost-effective complaint-handling procedures.
PB80-176316/GBJ (PC)A11 (MF)A01

Economic Cases of the Civil Aeronautics Board, Volume 101, April 1983 to May 1983 (Civil Aeronautics Board, 1983).
It covers the economic cases of the CAB from April to May 1983.
PB84-127695/GBJ (PC)A99 (MF)E04
Included in the Monthly Catalog under Item Number 179.

Investment Climate in Foreign Countries (4 volumes) (International Trade Administration, 1985):
United States embassies throughout the world prepare investment climate statements summarizing the laws, policies, and economic climate of their respective host countries which may affect existing or new direct investments. Statements include information on the condition and quality of host country infrastructure; availability of selected economic resources; government policies in the areas of taxation, naturalization and foreign exchange; investment incentives made available and performance requirements imposed by host country governments; and other items.

1. OECD and Other European Countries
   PB86-100070/GBJ (PC)$15.00 (MF)A01
2. Africa
   PB86-100088/GBJ (PC)$15.00 (MF)A01
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   PB86-100096/GBJ (PC)$15.00 (MF)A01
4. Western Hemisphere (Excluding Canada)
   PB86-100104/GBJ (PC)$15.00 (MF)A01

PB86-100062/GBJ (for the entire set)$45.00
Included in the Monthly Catalog under Item Number 231-B-1 for the set. The OCLC number is 12738041.

National OES (Occupational Employment Statistics) Survey- Based Matrix: Occupation-Industry Employment, 1984 and Projected 1995 Alternatives (Bureau of Labor Statistics, 1985).
The Bureau of Labor Statistics has developed a comprehensive set of data on the occupational employment composition of all industry sectors in the economy. These data are based chiefly on OES surveys conducted in the states. The data are arranged in a matrix or table showing

how total occupational employment is distributed by industry.
PB86-151776/GBJ (PC)A99 (MF)E15

Procurement Program (p-1), Department of Defense Budget for Fiscal Year 1986 (Department of Defense, 1985).
This document provides details of the request for the procurement program of the Department.
PB85-155331/GBJ (PC)$9.00 (MF)A01

Russian Reports (Central Intelligence Agency, 1986).
The information reported in this standing order service is political, statistical, and economical in such areas as agriculture, metals, minerals, natural gas, oil, and materials. Information on political, economic and military structures of Communist countries is given.
PB86-928100/GBJ Standing Order

Studies of Tax Policy, Innovation, and Patents: A Final Report (University of Pennsylvania, 1985).
Results are reported of studies to determine the effects of tax incentives on research and development in the U.S. and elsewhere, and the patent system on the rate of invention.
PB86-138955/GBJ (PC)A06 (MF)A01

HISTORY, LAW, AND POLITICAL SCIENCE

Reference

Appearances of Soviet Leaders, January-December 1984 (Central Intelligence Agency, 1985).
This guide lists the appearances of selected Soviet leaders for 1984.
PB85-928103/GBJ (PC)E09 (MF)A01
Included in the Monthly Catalog under Item Number 856-A-4 (fiche). The OCLC number is 01784040.

Campaign Finance Law, 1984: ASummary of State Campaign Finance Laws with Quick Reference Charts (Federal Election Committee, 1984).
This document reports summaries of current state campaign finance laws.
PB84-215797/GBJ (PC)A15 (MF)A01
Included in the Monthly Catalog under Item Number 1091-A. The OCLC number is 08559601.

The series of directories of government officials high - lighted in this section are available on standing order, PB86-927900/GBJ, All Communist Country Reports, at a reduced price.

Chiefs of State and Cabinet Members of Foreign Governments (Central Intelligence Agency, 1986).
The directory, which is updated monthly, lists chiefs of state and cabinet members of foreign governments.
PB86-928400/GBJ Subscription
$55 per year, North America; all other countries write for price
Monthly reports (12 issues). Included in the Monthly Catalog under Item Number 0856-A-5 (microfiche). The OCLC number is 04124278.

Directory of Albanian Officials (Central Intelligence Agency, 1985).
An unclassified reference aid identifying individuals who hold positions in the government and party.
PB85-927904/GBJ (PC)E05 (MF)A01

Directory of Chinese Officials: National Level Organizations (Central Intelligence Agency, 1985).
This publication provides the names and positions of key personnel of national level organizations in the People's Republic of China.
PB85-928211/GBJ (PC)E07 (MF)A01

Directory of Chinese Officials: Provincial Organizations (Central Intelligence Agency, 1985).
This reference aid provides the names and positions of key personnel of provincial organizations in the People's Republic of China.
PB86-928203/GBJ (PC)E11 PC only
The 1983 edition is included in the Monthly Catalog under Item Number 856-A-4 (fiche). The OCLC number is 08257964.

Directory of Chinese Officials: Scientific and Educational Organizations (Central Intelligence Agency, 1985).
The document is an update of the 1982 directory listing key personnel and organizations concerned with science and education in the People's Republic of China.
PB85-928202/GBJ (PC)E05 PC only
The 1981 edition is included in the Monthly Catalog. The OCLC number is 07891306.

Directory of Czechoslovak Officials (Central Intelligence Agency, 1985)
This reference aid identifies officials holding positions in the government and organizations.
PB85-927901/GBJ (PC)E07 (MF)A01

Directory of East German Officials (Central Intelligence Agency, 1984).
The directory identifies individuals who hold positions in selected party, government, economic, scientific, and other public organizations. It also provides a guide to the internal structure of some of these organizations.
PB84-927914/GBJ (PC)E07 (MF)A01

Directory of Iranian Officials (Central Intelligence Agency, 1985).
This reference aid identifies individuals who hold positions in selected government, party, or other public organizations in the Islamic Republic of Iran.
PB85-928020/GBJ (PC)E03 (MF)A01

Directory of Officials of the Bulgarian People's Republic (Central Intelligence Agency, 1984).
The directory identifies individuals who hold positions in selected party, government, economic, scientific, and public organizations. It also provides a guide to the internal structures of some of these organizations. An index to major organizations and a personality index follow the Directory listing. Duplicate names in the personality index refer to different individuals. A map of major

administrative subdivisions appears at the end of the Directory.
PB84-927907/GBJ (PC)E07 (MF)A01
Included in the Monthly Catalog under Item Number 856-A-4 (microfiche). The OCLC number is 02582753

Directory of Officials of the Democratic People's Republic of Korea (Central Intelligence Agency, 1985).
The reference aid lists names and positions of leading political, governmental, military, economic, educational, cultural and scientific personalities in North Korea.
PB85-927902/GBJ (PC)E05 (MF)A01
Included in the Monthly Catalog under Item Number 856-A-4 (microfiche). The OCLC number is 04281477

Directory of Officials of the German Democratic Republic (Central Intelligence Agency, 1982).
An unclassified reference aid identifying individuals who hold positions in the government.
PB82-927903/GBJ (PC)E09 (MF)A01
Included in the Monthly Catalog under Item Number 856-A-4 (microfiche). The OCLC number is 06532921.

Directory of Hungarian Officials (Central Intelligence Agency, 1985).
This guide identifies officials holding positions in the government, the communist party, and other prominent organizations.
PB86-927902/GBJ (PC)E07 PC only
Included in the Monthly Catalog under Item Number 856-A-4 (microfiche). The OCLC number is 11891017.

Directory of Officials of the Polish People's Republic (Central Intelligence Agency, 1983).
This directory is a functional reference guide to officials of the Polish government, political parties, and other prominent public organizations.
PB83-927908/GBJ (PC)E08 (MF)A01
Included in the Monthly Catalog under Item Number 856-A-4 (microfiche). The OCLC number is 03681318.

Directory of Officials of Vietnam (Central Intelligence Agency, 1985).
An unclassified reference aid identifying individuals who hold positions in the government and the party.
PB85-927907/GBJ (PC)E07 (MF)A01
Included in the Monthly Catalog under Item Number 856-A-5 (microfiche). The OCLC number is 10377506.

Directory of Romanian Officials (Central Intelligence Agency, 1985).
An unclassified reference aid identifying individuals who hold positions in the government and the party.
PB85-927903/GBJ (PC)E07 (MF)A01

Directory of Soviet Officials: National Organizations (Central Intelligence Agency, 1984).
This reference aid identifies individuals who hold positions in or are members of national level Soviet organizations.
PB84-928108/GBJ (PC)E11 (MF)A01
Included in the Monthly Catalog under Item Number 856-A-4 (microfiche). The OCLC number is 10217931.

Directory of Soviet Officials: Republic Organizations (Central Intelligence Agency, 1985).
This directory is a listing of prominent personalities in the 15 republics of the Soviet Union, their positions, when they were appointed, and their dates of birth.
PB85-928104/GBJ (PC)E11 (MF)A01

Directory of Soviet Officials: Science and Education (Central Intelligence Agency, 1984)
This directory identifies individuals who hold positions in or are members of selected scientific and educational organizations.
PB86-928101/GBJ (PC)E11 PC only
Included in the Monthly Catalog under Item Number 856-A-4 (microfiche). The OCLC number is 12098788.

Directory of USSR Foreign Trade Organizations and Officials (Central Intelligence Agency, 1985).
This publication is a reference guide to leading officials of the Ministry of Foreign Trade and other organizations engaged in foreign trade activities. It may be used to find the incumbents of given positions within an organization or the positions of given individuals. It also serves as a guide to the internal structure of some organizations.
PB85-928102/GBJ (PC)E05 (MF)A01

Directory of USSR Ministry of Defense and Armed Forces Officials (Central Intelligence Agency, 1985).
The publication is a functional reference guide to leading officials of the Soviet Ministry of Defense and the Armed Forces as well as to chiefs of prominent schools and attaches assigned to foreign countries. Names and positions reflect information received from unclassified sources as of 27 August 1985. Two lists follow the table of contents. The first lists military officials who hold membership in high-level bodies of the Communist Party of the Soviet Union. The second is a key to the military rank abbreviations used in this publication.
PB85-928113/GBJ (PC)E03 (MF)A01

Directory of USSR Ministry of Foreign Affairs Officials (Central Intelligence Agency, 1985).
This report is an unclassified reference aid listing officials of the Ministry.
PB85-928112/GBJ (PC)E03 (MF)A01
Included in the Monthly Catalog under Item Number 856-A-4 (microfiche).

Directory of Yugoslav Officials: A Reference Aid. December 1985 (Central Intelligence Agency, 1985).
The report is a guide identifying officials holding positions in the government, League of Communists, and other prominent organizations.
PB86-927903/GBJ (PC)E05 PC only
Included in the Monthly Catalog under Item Number 856-A-4 (microfiche). The OCLC number is 05309926.

Finding the Law: A Workbook on Legal Research for Laypersons (University of Denver, 1982).
This workbook was written primarily for survey personnel and others in government service who do not have a law background but frequently work with or are exposed to law.

Emphasis is on Federal law. The workbook gives examples and exercises at the end of each section.
PB85-144822/GBJ (PC)A13 (MF)A01
Included in the Monthly Catalog under Item Number 631. The OCLC number is 9481748.

Government of the Hungarian People's Republic (Central Intelligence Agency, 1985).
An unclassified reference aid identifying individuals who hold key positions in the government.
PB85-927910/GBJ (PC)E02 PC only
The 1978 edition is included in the Monthly Catalog under Item Number 856-A-3.

Government of the People's Republic of Bulgaria (Central Intelligence Agency, 1985).
This publication was prepared for the use of U.S. government officials, and the format, coverage, and content are designed to meet their specific requirements.
PB85-927906/GBJ (PC)E02 PC only

Hungarian Socialist Workers' Party (Central Intelligence Agency, 1985).
An unclassified reference aid identifying individuals who hold key positions in the party.
PB85-927908/GBJ (PC)E02 PC only
The 1978 edition is included in the Monthly Catalog under Item Number 856-A-3.

Military Manpower Statistics (Washington Headquarters Services, 1985).
This quarterly report provides information on various aspects of Department of Defense military manpower.
AD-A162974/0/GBJ (PC)A03 (MF)A01
Included in the Monthly Catalog under Item Number 310-E-8. The OCLC number is 7952852.

Non-Reference

International Terrorism: The Other World War (RAND Corp., 1985).
This report represents an analysis of international terrorism and discusses methods for its prevention.
AD-A163576/2/GBJ (PC)A03 (MF)A01

Worldwide Manpower Distribution by Geographical Area (Washington Headquarters Services, 1985).
This report contains summary data on the worldwide distribution of Department of Defense active duty military and civilian personnel and their dependents.
AD-A162963/3/GBJ (PC)A03 (MF)A01
Included in the Monthly Catalog under Item Number 310-E-7. The OCLC number is 7853323.

SOCIETY

Reference

Child Abuse and Neglect Litigation: A Manual for Judges (National Legal Resource Center for Child Advocacy and Protection, 1981).
Issues commonly involved in child protective litigation are addressed. Attention is given to the role of judges as court administrators, and their role affecting changes in agencies and groups that deal with child maltreatment. Each section is accompanied by a set of support readings.
SHR-0011443/GBJ (PC)A12 (MF)A01
Included in the Monthly Catalog under Item Number 452-C. The OCLC number is 07470004.

Establishing a Home Maintenance Program for Elderly Homeowners: A Guidebook (Urban Systems Research and Engineering Inc., n.d.)
This report discusses the planning and design of a home maintenance program for the elderly who become unable to maintain their homes. It reviews various policy options available for assisting the elderly and comments on the role of home maintenance programs as part of long- term care strategies.
PB83-238089/GBJ (PC)A06 (MF)A01

Helping the Homeless: A Resource Guide (CSR, Inc., 1984).
It presents effective ways to establish and operate local projects to feed, shelter, and, in other ways, care for homeless individuals. It is targeted to individuals or groups who may wish to start such projects, managers of existing programs, or government officials responsible for planning and coordinating services to the homeless.
PB85-120566/GBJ (PC)A10 (MF)A01

Non-Reference

Bicentennial Census: New Directions for Methodology in 1990 (National Research Council, 1985).
The report examines the Census Bureau's plans and programs for the 1990 census.
PB86-148574/GBJ (PC)A18 (MF)A01

Short-Stay Hospital Medicare Provider and Beneficial File, 1981 (Health Care Financing Administration, 1981).
The file contains 5,820 short-stay hospital provider and 727,553 Medicare beneficiary records.
PB85-238186/GBJ (CP)T02 Magnetic Tape

Taking Stock: Rural People and Poverty from 1970 to 1983 (Housing Assistance Council, Inc., 1984).
The report summarizes recent data from both the 1980 census and subsequent surveys on rural poverty, housing, infrastructure, population growth, and employment.
SHR-0012441/GBJ (PC)A06 (MF)A01

Urban Policy in a Changing Federal System: Proceedings of a Symposium (National Research Council, 1985).
The future of cities in a changing system of federalism is the subject of this volume of papers. Decentralization of Federal responsibilities to state and local governments and devolution to the private sector are the outcomes of the Reagan administration's formula for a new federalism; the authors deal with these changes in terms of their meaning for a variety of areas.
PB86-148657/GBJ (PC)A13 (MF)A01

BUILDING AND CIVIL ENGINEERING

Reference

Engineering Field Manual for Conservation Practices (Soil Conservation Service, 1984).
This manual provides guidance in the use of basic engineering principles, techniques, and procedures for the planning, design, installation, and maintenance of soil and water conservation practices. The material presented is limited to the types of conservation practices which are used most often.
PB85-175164/GBJ (PC)A99 (MF)E04
(1074P.) Included in the Monthly Catalog under Item Number 120-A.

Non-Reference

Housing Standards: Change to HUD 4930.2. Intermediate Minimum Property Standard Supplement for Solar and Domestic Hot Water Systems (Department of Housing and Urban Development, 1982).
This rule is made to provide an updating, clarification, and improvement to requirements contained in HUD Handbook 4930.2. Changes pertain to fire protection, penetration, roof covering, etc. Altogether, there are over 50 changes discussed here.
PB84-151091/GBJ (PC)A05 (MF)A01

A System for Fire Safety Evaluation of Health Care Facilities (National Bureau of Standards, 1980).
A quantitative evaluation system for grading health care facilities in terms of fire safety is described. Safety performance is gauged both in terms of overall safety impact and depth of redundance.
PB80-195795/GBJ (PC)A07 (MF)A01
Included in the Monthly Catalog under Item Number 247-D.

CHEMISTRY

Reference

Handbook for Sampling and Sample Preservation of Water and Waste Water (Environmental Protection Agency, 1982).
The handbook provides information on sampling for water and wastewater.
PB83-124503/GBJ (PC)A18 (MF)A01
Included in the Monthly Catalog under Item Number 431-I-24 (microfiche). The OCLC number is 08949348.

Pesticide Assessment Guidelines, Subdivision D: Product Chemistry (Environmental Protection Agency, 1982).
It constitutes one volume of a 12 part series. Subdivision D, which offers guidelines for the Federal Insecticide Fungicide and Rodenticide Act, was reviewed by the agency, industry, academia, and an environmental group. The report assesses products, including a description of their manufacturing process.
PB83-153890/GBJ (PC)A05 (MF)A01

Non-Reference

Principles of Quality Assurance of Chemical Measurements (National Bureau of Standards, 1985).
It discusses the general principles of quality assurance of chemical measurements. Recommendations are presented for developing credible quality assurance practices.
PB85-177947/GBJ (PC)A05 (MF)A01

Proposed Sampling and Analytical Methodologies for Addition to Test Methods for Evaluating Solid Waste: Physical/Chemical Methods, SW-846, Second Edition (Environmental Protection Agency, 1984).
A compilation of sampling and analysis methods proposed for addition to EPA's methods manual. Methods proposed, for example, are for sampling groundwater, incinerators, and land treatment facilities.
PB85-103026/GBJ (PC)A25 (MF)A01

COMMUNICATION

Reference

CCITT Plenary Assembly (8th), Malaga-Torremolinos (Spain), 8-19 October 1984. Volume VIII.2 Fascicle 2.1. Data Communication Networks; Services and Facilities, Terminal Equipment and Interfaces. Recommendations X.1-X.15 (International Telecommunication Union, 1984).
PB85-192656/GBJ (PC)$13.50 PC only
Also available in a set of 42 reports:
PB85-192318 (set number) (PC)$700.00 PC only

CCITT Plenary Assembly (8th), Malaga-Torremolinos (Spain), 8-19 October 1984. Volume II.1, General Tariff Principles - Charging and Accounting in International Telecommunications Services. Recommendations of the D. Series (International Telecommunication Union, 1985).
Fascicle II.1 of the Red Book covers private leased telecommunications facilities; tariff principles applying to data communication services over dedicated public data networks; charging and accounting in the international public telegram, teletex, telex facsimile, phototelegraph, maritime mobile service, and telephone service; transferred account service, etc.
PB85-192334/GBJ (PC)$24.00 PC only

CCITT Plenary Assembly (8th), Malaga-Torremolinos (Spain), 8-19 October 1984. Volume II.4, Telegraph Services. Operations and Quality of Service. Recommendations F.1-F.150 (International Telecommunication Union, 1985).
Contents of Fascicle II.4 of the Red Book: Series F Recommendations: telegraph services, operations and

quality of service, operating methods for the international public telegram service, the gentex network, etc.
PB85-192367/GBJ (PC)$27.00 PC only

CCITT Plenary Assembly (8th), Malaga-Torremolinos (Spain), 8-19 October 1984. Volume II.5, Telematic Services. Operations and Quality of Service. Recommendations F.160-F.350 (International Telecommunication Union, 1985).
Contents of Fascicle II.2 of the Red Book: public facsimile service, teletex service, videotex service, general telematic services, and application of Series T recom - mendations.
PB85-192375/GBJ (PC)$16.00 PC only

CCITT Plenary Assembly (8th), Malaga-Torremolinos (Spain), 8-19 October 1984. Volume III.3, Digital Networks -- Transmission Systems and Multiplexing Equipment. Recommendations G.700-G.956 (International Telecommunication Union, 1985).
Contents of Fascicle III.3 of the Red Book: general aspects of digital transmission systems, terminal equipment, digital networks, digital sections and digital line systems.
PB85-192409/GBJ (PC)$24.00 PC only

CCITT Plenary Assembly (8th), Malaga-Torremolinos (Spain), 8-19 October 1984. Volume III.5, Integrated Services Digital Network (ISDN). Recommendations of the Series I. (International Telecommunication Union, 1985).
Contents of Fascicle III.5 of the Red Book: general, service capabilities, overall network aspects and functions, and user-network interfaces.
PB85-192425/GBJ (PC)$18.00 PC only

CCITT Plenary Assembly (8th), Malaga-Torremolinos (Spain), 8-19 October 1984. Volume IV.3, Maintenance; International Sound-Programme and Television Transmission Circuits. Recommendations of the N Series (International Telecommunication Union, 1985).
Contents of Fascicle IV.3 of the Red Book: international sound-programme transmissions; setting up, lining up and monitoring the international sound-programme links and connections; lining up and maintenance of international sound-programme circuits; etc.
PB85-192458/GBJ (PC)$15.00 PC only

CCITT Plenary Assembly (8th), Malaga-Torremolinos (Spain), 8-19 October 1984. Volume IV.4, Specifications of Measuring Equipment. Recommendations of the O Series (International Telecommunication Union, 1985).
Contents of Fascicle IV.4 of the Red Book: specifications for analogue-type measurement equipment; specifications for digital type measurement equipment.
PB85-192466/GBJ (PC)$17.00 PC only

CCITT Plenary Assembly (8th), Malaga-Torremolinos (Spain), 8-19 October 1984. Volume VI.5, Digital Transit Exchanges in Integrated Digital Networks and Mixed Analogue-Digital Networks, Digital Local and Combined Exchanges. Recommendations Q.501-Q.517 (International Telecommunication Union, 1985).
Contents of Fascicle VI.5 of the Red Book: digital transit exchanges in integrated digital networks and mixed analogue digital networks; digital local and combined exchanges.
PB85-192524/GBJ (PC)$17.00 PC only

CCITT Plenary Assembly (8th), Malaga-Torremolinos (Spain), 8-19 October 1984. Volume VI.9, Digital Access Signaling System. Recommendations Q.920-Q.931 (International Telecommunication Union, 1985).
Contents of Fascicle VI.9 of the Red Book: ISDN user-network interface data link layer - general aspects; ISDN user-network interface data link layer specification; ISDN user- network interface layer 3; etc.
PB85-192565/GBJ (PC)$19.00 PC only

CCITT Plenary Assembly (8th), Malaga-Torremolinos (Spain), 8-19 October 1984. Volume VI.13, Man-Machine Language (MML). Recommendations Z.301-Z.341 (International Telecommunication Union, 1985).
Contents of Fascicle VI.13 of the Red Book: general principles; basic syntax and dialogue procedures; extended MML for visual display terminals; specification of the man-machine interface.
PB85-192607/GBJ (PC)$19.00 PC only

CCITT Plenary Assembly (8th), Malaga-Torremolinos (Spain), 8-19 October 1984. Volume VII.3, Terminal Equipment and Protocols for Telematic Services. Recommendations of the T Series (International Telecommunication Union, 1985).
Contents of Fascicle VII.3 of the Red Book: collaboration with other international organizations on CCITT defined telematic services.
PB85-192631/GBJ (PC)$35.00 PC only

CCITT Plenary Assembly (8th), Malaga-Torremolinos (Spain), 8-19 October 1984. Volume VIII.5, Data Communication Networks: Open Systems Interconnection (OSI), System Description Techniques. Recommenda - tions X.200-X.250 (International Telecommunication Union, 1985).
Contents of Fascicle VIII.5: introduction; scope and field of application; definitions; notation: introduction to open systems interconnection; concepts of a layered architecture; etc.
PB85-192680/GBJ (PC)$30.00 PC only

Non-Reference

Microwave Receivers and Related Components (Department of the Air Force, 1983).
This book defines different types of receivers and discusses the components and devices that are used in these receivers. The focus is on strip line or microstrip line technology, since this is the trend in receiver design. Further, the book only discusses sold-state devices.
PB84-108711/GBJ (PC)$27.50 (MF)A01
Included in the Monthly Catalog under Item Number 424.

New Television Networks: Entry, Jurisdiction, Ownership and Regulation (Federal Communications Commission).

Volume 1: Final Report (1980).
Volume 1 examines existing and potential FCC regulations of network commercial practices respecting affiliations, advertisers, and program suppliers. It describes the contribution each regulation has made or might make to the Commission's objectives of achieving competition, diversity and localism in the provision of television service to the public.
PB84-240357/GBJ (PC)A22 (MF)A01

Volume 2: Background Reports (1980).
Volume 2 contains three of the background reports on the economic organization and commercial practices of ABC, CBS, and NBC.
PB84-240365/GBJ (PC)A99 (MF)E03

Also available in set of two reports:
PB84-240340 (PC)E99 PC only
Included in the Monthly Catalog under Item Number 285.

COMPUTERS

Reference

Directory of Computer Software, 1986 (National Technical Information Service, 1986).
Describing some 1,600 computer programs developed by more than 100 Federal agencies, the directory features applications and graphics software, software tools, and modeling and simulation programs.
PB86-135357/GBJ (PC)N02 (MF)N02
The 1984 edition is included in the Monthly Catalog under Item Number 188-A-3. The OCLC number is 09789329.

Directory of Computerized Data Files (National Technical Information Service, 1986).
NTIS has in its inventory more than 1,000 data files recorded on magnetic tape. The Directory is published for the convenience of potential users of these data files. Its purpose is to provide descriptive information on the availability and content of these machine-readable data files which may be acquired by the public. NTIS prepares and updates the directory's abstracts and corresponding indexes based on information provided by the Federal agencies which are the source of these files.
PB86-151446/GBJ (PC)N02 (MF)N02

End Users Guide to Buying Small Computers (General Services Administration, 1984).
This guide is oriented toward acquisition of microcomputers and associated products. It provides step by step procedures for Federal officials unfamiliar with the acquisition of equipment for end user computing.
PB85-136927/GBJ (PC)A03 (MF)A01
Included in the Monthly Catalog under Item Number 580-C-2. The OCLC number is 11127980.

Guideline for Automatic Data Processing Risk Analysis. Category: ADP Operations. Subcategory: Computer Security (National Bureau of Standards, 1979).
The guideline relating computer security to risk analysis is intended for use by ADP managers and technical staff.
FIPS PUB65/GBJ (PC)A03 (MF)A01
Included in the Monthly Catalog under Item Number 248-D.

Guideline for Choosing a Data Management Approach (National Bureau of Standards, 1984).
In this guideline is a framework for comparing and selecting alternative data management approaches. The emphasis is on pragmatic guidance that captures the major decision factors.
FIPS PUB110/GBJ (PC)A03 (MF)A01
Included in the Monthly Catalog under Item Number 248-D. The OCLC number is 12100638.

Guideline for Computer Security Certification and Accreditation.Category: ADP (Automated Data Processing) Operations. Subcategory: Computer Security (National Bureau of Standards, 1983).
This guideline is intended for use by ADP managers and technical staff in establishing and carrying out a program and a technical process for computer security certification and accreditation of sensitive computer applications. It identifies and describes the steps involved in performing computer security, certification, and accreditation. The guideline also relates certification and accreditation to risk analysis, EDP audit, validation, verification, testing, and the system life cycle.
FIPS PUB102/GBJ (PC)A05 (MF)A01

Guidelines for Security of Computer Applications (National Bureau of Standards, 1980).
This guideline describes the technical and managerial decisions that should be made in order to assure that adequate controls are included in new and existing computer applications to protect them from natural and man-made hazards and to assure that critical functions are performed correctly and with no harmful side effects.
FIPS PUB73/GBJ (PC)A04 (MF)A01
Included in the Monthly Catalog under Item Number 248-D.

Non-Reference

Codes for Named Populated Places, Primary County Divisions, and Other Locational Entities of the United States (FIPS PUB55/GBJ), 8th Update (National Bureau of Standards, 1986).
(See full record under GENERAL LIBRARY AND INFORMATION TITLES)

Computer Crime: Computer Security Techniques (SRI International, 1982).
This document presents the results of a major review of the computer security procedures currently used in the public and private sectors. Over 80 techniques are described and classified. The document also identifies some of the legal issues relevant to protection of computer hardware and data.
PB83-111054/GBJ (PC)E05 (MF)A01
Included in the Monthly Catalog under Item Number 717-R-1. The OCLC number is 08741201

Initial Graphics Exchange Specification (IGES) Version 2.0 (National Bureau of Standards, 1983).
This document contains Version 2.0 of the specification. It presents a defined format for the creation of a file which enables data to be exchanged or archived.
PB83-137448/GBJ (PC)$25.75 (MF)A01
Included in the Monthly Catalog under Item Number 247-D (microfiche).

MSA: Metropolitan Statistical Areas Data Tape, February 1985 Version (National Bureau of Standards, 1985).
This tape contains computer files documenting titles, components and Federal Information Processing Standards codes for MSA's and related statistical areas. It includes two computer files to convert titles, components, and FIPS codes for SMSA's to MSA definitions.
PB85-161115/GBJ (CP)T02 Magnetic Tape

Overview of Artificial Intelligence and Robotics, Volume 1: Artificial Intelligence. Part A: The Core Ingredients (National Aeronautics and Space Administration, 1983).
The report clarifies what artificial intelligence is, the foundations on which it rests, the techniques used, applications, the participants, the state-of-the-art, and future trends.
N83-31379/GBJ (PC)A04 (MF)A01
Included in the Monthly Catalog under Item Number 830-D (microfiche).

Overview of Artificial Intelligence and Robotics, Volume 2: Robotics (National Bureau of Standards, 1982).
This report provides an overview of robotics for the technically oriented layman. It defines various types of robots, summarizes basic concepts, reviews the state-of-the-art and statistics of robot manufacture and usage. The majority of the material is drawn from the activities in the U.S. and Japan.
PB83-217547/GBJ (PC)A06 (MF)A01
Included in the Monthly Catalog under Item Number 830-D.

Overview of Computer Vision (National Bureau of Standards, 1982).
The emphasis is on image understanding and scene analysis. It reviews the basic approach to computer vision systems, the techniques used, applications, the current existing systems and state-of-the-art, issues and research requirements, who is doing it and who is funding it, and future trends and expectations.
PB83-217554/GBJ (PC)A08 (MF)A01
Included in the Monthly Catalog under Item Number 247-D.

Overview of Expert Systems (National Bureau of Standards, 1982).
This report explains expert systems, techniques used, existing systems, applications, who is doing it, who is funding it, the state-of-the-art, research requirements, and future trends and opportunities.
PB83-217562/GBJ (PC)A04 (MF)A01
Included in the Monthly Catalog under Item Number 247-D (microfiche).

Technical Overview of the Information Resource Dictionary System (National Bureau of Standards, 1985).
This publication provides a technical overview of the computer software specifications for an Information Resources Dictionary System (IRDS). It summarizes the data architecture and the software functions and processes of the IRDS.
PB85-224491/GBJ (PC)A07 (MF)A01

ENERGY

Reference

Architects and Engineers Guide to Energy Conservation in Existing Buildings (Department of Energy, 1980).
The manual offers a field tested approach to identifying, analyzing, and recommending action on the wide range of opportunities and options available to reduce energy use in most existing buildings. Besides a review of the principles of energy use and conservation, the manual provides a step-by-step methodology for assessing and improving the year-round energy performance of buildings, as well as a series of forms, charts, and monographs designed to serve as day-to-day tools in the energy professional's tool box.
DOE/CS/0132/GBJ (PC)A20 (MF)A01
Included in the Monthly Catalog under Item Number 429-T-2. The OCLC number is 6348523.

Energy Database: Subject Categories and Scope Definitions and Limitations (Department of Energy, 1985).
The database encompasses all DOE sponsored research. The publication includes scope notes and cross references.
DE84-017376/GBJ (PC)$9.50 (MF)A01

Guide to Efficient Oil Heating in Homes (Department of Energy, 1981).
The guide contains general information concerning methods of increasing the efficiency of home heating systems, specifically, to be used by experienced oil burner service personnel and training instructors. Most of the discussion involves high pressure atomizing burners because they are the most common design.
DE82-010838/GBJ (PC)A11 (MF)A01

National Office Compliance Manual (Federal Energy Administration, 1980).
Abstract not available.
TID28673/GBJ (PC)A10 (MF)A01

Passive Solar Design Handbook (Department of Energy).

> Volume 1: Passive Solar Design Concepts (1980).
> *It covers background to passive solar building design, the basics of solar building design, five passive solar heating techniques: direct gain, conventive loops, thermal storage walls, thermal storage roofs, and attached sunspaces. The*

handbook also presents new developments for the future.
DOE/CS/01271/GBJ (PC)A16 (MF)A01

Volume 2: Passive Solar Design Analysis (1980).
It covers basic principles, the design process, and analysis methods.
DOE/CS/01272/GBJ (PC)A19 (MF)A01

Volume 3: Passive Solar Design Analysis (1982).
This volume updates volume 2 by presenting new data on the optimum mix of conservation and solar direct gain, sunspaces, thermal storage walls, and solar radiation.
DOE/CS/0127/GBJ (PC)A99 (MF)A01

Included in the Monthly Catalog under Item Number 429-T-2 (microfiche). The OCLC number is 06450105.

Photovoltaic Product Directory and Buyers Guide (Department of Energy, 1981).
Basic information on photovoltaic conversion technology is provided for those unfamiliar with the field. Various types of photovoltaic products and systems currently available off- the-shelf are described. Procedures are given for designing a photovoltaic system from scratch. A few custom photovoltaic systems are described, and a list is compiled of photvoltaic firms which provide custom systems. Guidance is offered for deciding whether or not to use photovoltaic products. A variety of installations are described and their performance is appraised by the owners. Information is given on various financial incentives available from state and federal governments. Sources of additional information on photovoltaics are listed.
DE81-030186/GBJ (PC)A07 (MF)A01

USSR Energy Atlas (Central Intelligence Agency, 1985).
The atlas portrays Soviet energy.
PB85-928106/GBJ (PC)E05 PC only
Included in the Monthly Catalog under Item Number 856-A-1. The OCLC number is 12334614.

Non-Reference

Deregulated Gasoline Marketing: Consequences for Competition, Competitors and Consumers (Department of Energy, 1984).
Gasoline marketing industry changes since decontrol became effective were studied. The report presents the findings of the study.
DE84-009873/GBJ (PC)A08 (MF)A01

Identifying Retrofit Projects for Buildings (Department of Energy, 1980).
This guide to Federal field personnel identifies building retrofit projects with early returns on investments.
DOE/CS/0133/GBJ (PC)A07 (MF)A01
Included in the Monthly Catalog under Item Number 429-I-2 (microfiche). The OCLC number is 06960348.

Micro-Hydro Power: Reviewing an Old Concept (Department of Energy, 1979).
It provides information on all aspects of micro-hydro systems and serves as an introduction to the topic.
DOE/ET/O1752-1/GBJ (PC)A04 (MF)A01

Project on Restaurant Energy Performance: End-Use Monitoring and Analysis (Battelle Pacific Northwest Labs., 1985).
This report summarizes the results of a multiyear collaborative research effort, designed to collect information on end-use energy consumption.
DE85-013167/GBJ (PC)A08 (MF)A01

SEDS (State Energy Data System) Public Use Tape, 1960-1984 (Department of Energy, 1986).
The file contains all the data of the State Energy Data System. The data are used to estimate annual energy consumption by principal energy source, by major end-use sectors, and by state.
PB86-197431/GBJ (CP)T02 Magnetic Tape

U.S. Energy for the Rest of the Century, 1985 edition (International Trade Administration, 1985).
The report presents U.S. energy consumption and supply for 1984 and the year 2000.
PB85-214245/GBJ (PC)A04 (MF)A01

ENVIRONMENTAL POLLUTION: CONTROL

Reference

Characterization of Hazardous Waste Sites - A Methods Manual. Volume 1: Site Investigations (Lockheed Engineering and Management Services Co., 1985).
This is the first of 3 volumes of a methods manual prepared to give guidance on information gathering activities in support of the requirement specified in the National Oil and Hazardous Substances Pollution Contingency Plan.
PB85-215960/GBJ (PC)A12 (MF)A01
Included in the Monthly Catalog under Item Number 431-I-24.

Compilation of Air Pollutant Emission Factors, 3rd. edition (Including Supplements 1-7). Supplement No. 8 (Environmental Protection Agency, 1978).
In this supplement for Compilation of Air Pollutant Emmission Factors, AP-42, revised and updated emissions data are presented for wood stoves; refuse incineration; open burning; off-highway stationary sources; primary copper smelting; secondary copper smelting and alloying; cotton ginning; ammonium nitrate fertilizer manufacturing; asphaltic concrete plants; asphalt roofing manufacturing, glass manufacturing; petroleum refining unpaved roads; and paved roads.
PB-288905 (PC)A06 (MF)A01

Compilation of Air Pollutant Emission Factors, 3rd edition (Including Supplement 1-7) Supplement No. 9 (Environmental Protection Agency, 1979).
This supplement covers waste oil disposal; transportation and marketing of petroleum liquids; cutback asphalt, emulsified asphalt and asphalt cement; solvent degreasing; synthetic ammonia; carbon black; lead alkyl; bread baking; urea; beef cattle feedlots; defoliation and harvesting of cotton; primary copper smelting; secondary copper smelting and alloying; storage battery production; lead oxide and pigment production; miscellaneous lead products; leadbearing ore crushing and grinding; concrete batching; and woodworking operations.
PB81-244097/GBJ (PC)A10 (MF)A01
The Monthly Catalog includes the 2nd and 3rd editions, with supplement 1-7, under Item Number 483-E.

Compilation of Air Pollutant Emission Factors, 3rd edition (Including Supplement 1-7) Supplement No. 10 (Environmental Protection Agency, 1980).
This supplement presents new, revised, and updated emissions data for mobile sources; aircraft; transportation and marketing of petroleum liquids; waste solvent reclamation; tank and drumcleaning; hydrofluoric acid; phosphoric acid; sulfur recovery; wine making; harvesting of grain; primary lead smelting; coal cleaning; glass fiber manufacturing; phosphate rock processing; coal conversion; taconite ore processing; plywood veneer and layout operations; woodworking waste collection operations; and explosives detonation.
PB80-199045/GBJ (PC)A07 (MF)A01
Included in the Monthly Catalog under Item Number 483-E.

Compilation of Air Pollutant Emission Factors, 3rd. edition Supplement 11 (Environmental Protection Agency, 1980).
This supplement presents revised and updated emissions data for nitric acid, pharmaceuticals, production; maleic anhydride; normal and triple superphatest ammonium phosphates; coke manufacturing; primary copper smelting; iron and steel production; secondary lead processing, and petroleum refining.
PB81-178014/GBJ (PC)A05 (MF)A01
Included in the Monthly Catalog under Item Number 483-E.

Compilation of Air Pollutant Emission Factors, 3rd edition Supplement 12 (Including Supplements 1-7) (Environmental Protection Agency, 1981).
In this supplement for AP-42, revised or updated emissions data are presented for dry cleaning; surface coating; storage of organic liquids; solvent degreasing; graphic arts; consumer/commercial solvent use; sulfuric acid; beer making; ammonium sulfate; primary aluminum; secondary aluminum; gray iron foundries; steel foundries; secondary zinc; asphaltic concrete; asphalt roofing; NEDS source classification codes and emission factor listing; and table of lead emission factors.
PB82-101213/GBJ (PC)A09 (MF)A01
Included in the Monthly Catalog.

Compilation of Air Pollutant Emission Factors, 3rd. edition Supplement 13 (Including Supplements 1-7) (Environmental Protection Agency, 1982).
It presents new and revised emission data for bituminous coal and subbituminous coal combustion, fuel oil combustion, and natural gas combustion, liquefied petroleum gas combustion, wood waste combustion in boilers, lignite combustion, stationary large bore diesel and dual fuel engines, automobile and light duty truck surface coating, pressure sensitive tapes and labels, metal coil surface coating, textile fabric printing, sodium, carbonate, emulsion styrene-butadiene copolymers, storage battery production, and metallic minerals processing.
PB83-126557/GBJ (PC)A06 (MF)A01
Included in the Monthly Catalog.

Compilation of Air Pollutant Emission Factors, 3rd edition (Including Supplement 1-7) Supplement No. 14 (Environmental Protection Agency, 1983).
This supplement presents new or revised emissions data for anthracite coal combustion, wood waste combustion in boilers, residential fireplaces, wood stoves, open burning, large appliance surface coating, metal furniture surface coating, adipic acid, synthetic ammonia, carbon black, charcoal, explosives, paint and varnish, phthalic anhydride, printing ink, soap and detergents, terephthalic acid, maleic anhydride, primary aluminum production, iron and steel production, gypsum manufacturing, construction aggregate processing, sand and gravel processing, taconite ore processing; western surface mining, fugitive dust sources, unpaved roads, agricultural tilling, aggregate handling and storage piles, and industrial paved roads.
PB83-250720/GBJ (PC)A08 (MF)A01

Compilation of Air Pollutant Emission Factors, 3rd edition (Including Supplement 1-7) Supplement No. 15 (Environmental Protection Agency, 1984).
This supplement provides new, revised, or reformatted emissions data on stationary large bore and dual fuel engines; general industrial surface coating; can coating; magnet wire coating; other metal coating; flat wood interior panel coating; fabric coating; tank and drum cleaning; fish processing; ammonium nitrate; urea; primary aluminum production; primary copper smelting; asphaltic concrete plants; calcium carbide manufacturing; and agricultural tilling.
PB84-199744/GBJ (PC)A05 (MF)A01

EPA (Environmental Protection Agency) Publications Bibliography 1977-1983. Part 1. Report Summaries. Part 2. Indexes (Environmental Protection Agency, 1983).
This bibliography consolidates into one publication all reports previously published in the EPA Publications Bibliography, Quarterly Abstract Bulletin from its inception in 1977 through 1983. The EPA Cumulative Bibliography, 1970-1976, published in December 1976 (order number PB265920, price code E99) contains reports generated by the EPA and its predecessor agencies and entered into the NTIS collection from 1970 through 1976. The EPA Publications Bibliography, Quarterly Abstract Bulletin is published as an ongoing subscription service. Together, these three publications should provide sufficient information for any user to identify any EPA report desired.
PB84-158500/GBJ (PC)$200.00 PC only

Guideline for Determination of Good Engineering Practice Stack Height ... (Environmental Protection Agency, 1985).

The guideline provides background information used to develop a means of computing good engineering practice (GEP) stack height according to the Clean Air Act. It also summarizes the application of the structure- based formula to determine GEP stack height under different general building formations.
PB85-225241/GBJ (PC)A06 (MF)A01
The 1981 edition is included in the Monthly Catalog under Item Number 483-E-2 (microfiche).

A Handbook of Key Federal Regulations and Criteria for Multimedia Environmental Control (Environmental Protection Agency, 1979).
It summarizes major Federal environmental regulations and recommendations, and the legislative acts that authorize them. It summarizes and tabulates quantitative control limits specified by Federal agencies. The handbook also compares the various regulations, standards, and criteria.
PB80-107998/GBJ (PC)A12 (MF)A01

Handbook on Atmospheric Diffusion (National Oceanic and Atmospheric Administration, 1982).
Basic meteorological concepts are covered as well as plume rise, source effects, and diffusion models. Chapters are included on cooling tower plumes and urban diffusion. Suggestions are given for calculating diffusion in special situations, such as for instantaneous releases over complex terrain, over long distances, and during times when chemical reactions or dry or wet deposition are important.
DE82-002045/GBJ (PC)$10.75 (MF)A01

Industrial Source Complex (ISC) Dispersion Model User's Guide (Environmental Protection Agency).

Volume 1. (1979).
The guide describes the model and its use. The model updates various EPA dispersion model algorithms and combines them into two computer programs that assess the air quality impact of emissions.
PB80-133044/GBJ (PC)A16 (MF)A01

Volume II, Appendices A through I (1979).
This volume contains the computer source code for the short and long term Industrial Source Complex models. The source code for the Meteorological Preprocessor program is also included.
PB80-133051/GBJ (PC)A20 (MF)A01

Petitions to Delist Hazardous Wastes: A Guidance Manual (Industrial Economics, 1985).
This manual describes all necessary data which must be included in a delisting petition submitted under 40 CFR 260.22. The manual presents a step-wise approach to compiling a petition and includes a sample petition and necessary test methods.
PB85-194488/GBJ (PC)A10 (MF)A01

Samplers and Sampling Procedures for Hazardous Waste Streams (Environmental Protection Agency, 1980).
The goals of this project was to develop simple but effective sampling equipment and procedures for collecting, handling, storing, and recording samples of hazardous wastes. The report describes sampling devices designed to meet the needs of those who regulate and manage hazardous wastes. Particular emphasis is given to the development of a composite liquid sampler. In addition to the sampling devices, the report describes procedures for the development of a sampling plan, sample handling, safety precautions, proper record-keeping and chain of custody, and sample containment, preservation, and transport. Also discussed are certain limitations and potential sources of error that exist in the sampling equipment and the procedures. The statistics of sampling are covered briefly, and additional references are given.
PB80-135353/GBJ (PC)A05 (MF)A01
Included in the Monthly Catalog under Item Number 431-I-12.

Non-Reference

Acid Precipitation in North America: 1983 Annual Data Summary from Acid Deposition System Data Base (Department of Energy, 1985).
The report gives a summary of 1983 wet deposition precipitation chemistry data collected in North America and available in the Acid Deposition System database.
PB86-166345/GBJ (PC)A09 (MF)A01

Air Quality Data -- 1980 Annual Statistics Including Summaries with Reference to Standards (Environmental Protection Agency, 1981).
This report presents comprehensive summaries of data produced by the nation's ambient air quality monitoring activities for 1980.
PB82-106501/GBJ MF only (MF)A01
Included in the Monthly Catalog under Item Number 431-I-31. The OCLC number is 2197622.

Air Quality Data -- 1984 Annual Statistics Including Summaries with Reference to Standards (Environmental Protection Agency, 1985).
This annual report presents comprehensive summaries of data produced by the nation's ambient air quality monitoring activities for the year.
PB85-214237/GBJ MF only (MF)A01
Included in the Monthly Catalog under Item Number 431-I-31. The OCLC number is 2197622.

Recommended Practice for the Use of Parshall Flumes and Palmer-Bowlus Flumes in Waste Water Treatment Plants (National Bureau of Standards, 1981).
These flumes are suitable for in-plant open channel flow measurement of raw wastewater and treated effluent as well as wastewater in intermediate stages of treatment. Suggested methods of calibrating and monitoring the performance of the flumes and secondary instruments are described.
PB85-122745/GBJ (PC)A04 (MF)A01

Techniques for Treating Hazardous Wastes to Remove Volatile Organic Constituents (Research Triangle Institute, 1985).
It discusses the potential for using commercially available treatment techniques to remove VOCs from hazardous

waste streams and addresses some of the issues associated with making waste treatment a viable VOC emission control technique for hazardous waste management facilities. It discusses the waste streams of concern and describes potentially applicable treatment techniques.
PB85-218782/GBJ (PC)A02 (MF)A01

MATERIALS SCIENCES

Reference

Literature Survey of Discontinuous-Fiber-Reinforced Composites with Emphasis on Pressure Vessels (Rockwell International, 1985).
The document reviews the relevant literature.
DE85-010386/GBJ (PC)A02 (MF)A01

MEDICINE AND BIOLOGY

BIOLOGY

Reference

Ambient Water Quality Criteria for Ammonia (Environmental Protection Agency, 1984).
It summarizes important aquatic toxicology data pertaining to ammonia.
PB85-227114/GBJ (PC)A11 (MF)A01

Ambient Water Quality Criteria for Arsenic (Environmental Protection Agency, 1984).
It summarizes important aquatic toxicology data pertaining to arsenic.
PB85-227445/GBJ (PC)A04 (MF)A01
An earlier edition (1980) is included in the Monthly Catalog under Item Number 431-I-14. The OCLC number is 6988049.

Ambient Water Quality Criteria for Cadmium (Environmental Protection Agency, 1984).
It summarizes important aquatic toxicology data pertaining to cadmium.
PB85-227031/GBJ (PC)A07 (MF)A01
An earlier edition is included in the Monthly Catalog under Item Number 431-I-14. The OCLC number is 6994297.

Ambient Water Quality Criteria for Chlorine (Environmental Protection Agency, 1984).
It summarizes important aquatic toxicology data pertaining to chlorine.
PB85-227429/GBJ (PC)A04 (MF)A01
Included in the Monthly Catalog but there is no Item Number.

Ambient Water Quality Criteria for Chromium (Environmental Protection Agency, 1984).
It summarizes important aquatic toxicology data pertaining to chromium.
PB85-227478/GBJ (PC)A06 (MF)A01
An earlier edition (1980) is included in the Monthly Catalog under Item Number 431-I-14. The OCLC number is 6998630.

Ambient Water Quality Criteria for Copper (Environmental Protection Agency, 1984).
It summarizes important aquatic toxicology data pertaining to copper.
PB85-227023/GBJ (PC)A07 (MF)A01
An earlier edition (1980) is included in the Monthly Catalog under Item Number 431-I-14. The OCLC number is 6998721.

Ambient Water Quality Criteria for Cyanide (Environmental Protection Agency, 1984).
It summarizes important aquatic toxicology data pertaining to cyanide.
PB85-227460/GBJ (PC)A04 (MF)A01
An earlier edition (1980) is included in the Monthly Catalog under Item Number 431-I-14. The OCLC number is 7003120.

Ambient Water Quality Criteria for Lead, (Environmental Protection Agency, 1984).
It summarizes important aquatic toxicology data pertaining to lead.
PB85-227437/GBJ (PC)A05 (MF)A01
An earlier edition (1980) is included in the Monthly Catalog under Item Number 431-I-14. The OCLC number is 6984626.

Ambient Water Quality Criteria for Mercury (Environmental Protection Agency, 1984).
It summarizes important aquatic toxicology data pertaining to mercury.
PB85-227452/GBJ (PC)A07 (MF)A01
An earlier edition (1980) is included in the Monthly Catalog under Item Number 431-I-14. The OCLC number is 7012214.

Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic Organisms and Their Uses (Environmental Protection Agency, 1985).
The document describes the method to be used in deriving the criteria as well as the database, data evaluation, and calculations.
PB85-227049/GBJ (PC)A06 (MF)A01

CLINICAL MEDICINE

Reference

Procedures for the Isolation and Identification of Mycobacteria (1975 edition) (Center for Disease Control, 1978).
The manual offers directions for the isolation and precise identification of most clinically important mycobacteria recovered from humans. Because of worldwide distribution, this manual has been labeled as the "bible" for clinical mycobacteriologists.
PB-297964/GBJ (PC)$8.00 (MF)A01
Included in the Monthly Catalog under Item Number 494-L.

Non-Reference

Common Blood and Tissue Parasites of Man: Life Cycle Charts (Center for Disease Control, 1979).
This manual contains charts of the life cycle of 18 parasites commonly found in the blood and tissues of man.
PB-297959/GBJ (PC)$4.50 (MF)A01
Included in the Monthly Catalog under Item Number 504.

Fluorescent Antibody Techniques and Bacterial Applications (Center for Disease Control, 1978).
This manual covers equipment, reagents, procedures, and controls used with the direct FA method for detecting bacteria. A section on FA techniques for diagnostic bacteriology covers the system now being used for clinical diagnostic purposes.
PB-297961/GBJ (PC)$6.00 (MF)A01

Immunofluorescence Methods in Virology (Course No. 8231- C) (Public Health Service, 1979).
This manual is intended for clinical and diagnostic laboratories interested in using immunofluorescence technique for rapid vital diagnosis. It covers the fluorescence microscope, preparation of FITC conjugates, physicochemical evaluation of vital conjugates, preparation of substrate controls, performance of vital conjugates, the immunofluorescence test, collection and preparation of specimens for the immunofluorescence tests, and diagnostic applications of immunofluorescence in virology.
PB-297965/GBJ (PC)$8.00 (MF)A01
Included in the Monthly Catalog under Item Number 494-L.

"Legionnaires" The Disease, the Bacterium and Methodology (Center for Disease Control, 1979).
It presents much of the history and nature of the disease, and characteristics of the causative organism.
PB-297957/GBJ (PC)$9.00 (MF)A01
Included in the Monthly Catalog under Item Number 494-L.

Morphology of Diagnostic Stages of Intestinal Parasites of Humans (Centers for Disease Control, 1984).
The diagnostic stages of intestinal parasites are differentiated on the basis of specific morphologic features that can be seen microscopically.
PB85-102655/GBJ (PC)A03 (MF)A01
Included in the Monthly Catalog as Item Number 504.

Patent Profiles: Biotechnology: 1982 Update (Patent and Trademark Office, 1982).
Covering both foreign and domestic U.S. patents, the report was prepared as part of an effort to offer users insights into the "who, what, when, and where" of the U.S. patent activity in biotechnology. It covers more than 2,900 patents.
PB83-240937/GBJ (PC)$15.50 (MF)A01
Included in the Monthly Catalog under Item Number 256-B (microfiche).

Reports on AIDS (Acquired Immunodeficiency Syndrome) Published in the Morbidity and Mortality Weekly Report, June 1981 through February 1986 (Centers for Disease Control, 1986)
The publication includes all the articles related to AIDS that have appeared in the Morbidity and Mortality Weekly Report, published by the Centers for Disease Control, from 1981 through February 1986.
PB86-182060/GBJ (PC)$8.25 (MF)A01

Sample Criteria for Procedure Review: Screening Criteria to Assist PSROs (American Medical Association, 1980).
It includes criteria for 155 surgical and other major diagnostic and therapeutic procedures. Its purpose is to guide Professional Standards Review Organizations in developing explicit criteria for the review of major elective procedures performed in short- stay hospitals.
PB81-179871/GBJ (PC)A14 (MF)A01
The 1976 edition is included in the Monthly Catalog under Item Number 486-E-1. The OCLC number is 2417533.

Serodiagnosis of Toxoplasmosis, Rubella, Cytomegalic Inclusion Disease, Herpes Simplex (Center for Disease Control, 1977).
This manual serves as a procedural guide for some of the serologic procedures used to facilitate or confirm the diagnosis of congenital or neonatal infections due to toxoplasma gondii, rubela virus, human cytomegalovirus, and herpesvirus hominus.
PB-297960/GBJ (PC)$6.50 (MF)A01
Included in the Monthly Catalog. The OCLC number is 08081474.

HEALTH

Reference

A Classification Scheme for Client Problems in Community Health Nursing (Public Health Service, 1980).
The manual presents a classification of client problems addressed by community health nurses. It describes the classification scheme and its development, and provides information necessary for implementation.
HRP0501501/GBJ (PC)A05 (MF)A01
Included in the Monthly Catalog under Item Number 507-J-7.

Guideline for Infection Control in Hospital Personnel (Centers for Disease Control, 1983).

The guideline was developed to provide a central reference for professionals involved in infection control. It also offers the recommendations of personnel of the Centers for Disease Control.

PB85-923402/GBJ (PC)$7.00 PC only

Guideline for Isolation Precautions in Hospitals (Centers for Disease Control, 1983).

The isolation precautions presented here are considered to be a collection of prudent practices recommended by personnel of the Centers for Disease Control and a panel of outside experts.

PB85-923401/GBJ (PC)$7.00 PC only

Guidelines for the Prevention and Control of Nosocomial Infections (Centers for Disease Control, 1985).

This seven volume set is intended for use by hospital personnel who are responsible for infection surveillance and control. It is assembled in loose-leaf form to allow periodic revisions and additions. The topics included are: prevention of catheter-associated urinary tract infections, environmental control of nosocomial infections, and prevention of intravascular infections.

PB86-133022/GBJ (PC)$38.25(PC only

Included in the Monthly Catalog under Item Number 505-A (microfiche). The OCLC number is 07481539.

Peer Review Organization Program Manual (Health Care Financing Administration, 1985).

The manual is a set of operating instructions designed to provide clarification and guidance to PRO's in implementing and carrying out their required review functions.

PB85-954099/GBJ (PC)A05 PC only

Included in the Monthly Catalog under Item Number 508-H-1.

Peer Review Organization Program Manual. Revisions (Health Care Financing Administration, 1985).

This subscription item provides the basic manual. See entry above(PB86-954099/GBJ).

PB86-954000/GBJ Standing Order

Reference Criteria for Short-Stay Hospital Review (American Association of Professional Standards Review Organizations, 1980).

It includes criteria for approximately 300 diagnoses and medical conditions. Its purposes are to assist Professional Standards Review Organizations in developing their own locally based criteria for review in short-stay hospitals and serve as a frame of reference to review or disapprove the criteria used by such local organizations.

PB81-179889/GBJ (PC)A22 (MF)A01

Non-Reference

Bureau of Health Professions Area Resource File (ARF) Documentation Tape (Bureau of Health Professions, 1985).

The Bureau's ARF is a county-unit database with over 6,000 data elements for each county in the U.S. (with some exceptions). This tape provides documentation data sets to facilitate tape usage.

HRP-0906615/0/GBJ (CP)T02 Magnetic Tape

Bureau of Health Professions Area Resource File (ARF) Tape (Bureau of Health Professions, 1985).

ARF summarizes data from many sources into a single file to facilitate health analysis. It provides health professions training data, expenditure data, economic and environmental data, population data, health facility data, health professions data, and county descriptors.

HRP-0906617/6/GBJ (CP)T02 Magnetic Tape

Bureau of Health Professions Area Resource File (ARF) Tape and Bureau of Health Professions Area Resource File Documentation (Applied Management Sciences, Inc., 1985).

This product provides a magnetic tape copy of the master ARF tape and corresponding technical and user documentation.

HRP-0906618/4/GBJ (PC)A15 (MF)A01

Hospital Mergers and Consolidations: Opportunities for Financial Improvements (ICF, Inc., 1984).

The report presents findings from a study which identified circumstances under which merger, consolidation, or corporate restructure may improve the financial condition of private, nonprofit hospitals. The report also presents a preliminary guide for the evaluation of potential merger or consolidation opportunities.

HRP-0906031/GBJ (PC)A07 (MF)A01

INDUSTRIAL (OCCUPATIONAL) MEDICINE

Reference

Encyclopedia of Occupational Health and Safety (Includes Volumes 1 and 2), Third Revised Edition (International Labour Office, 1983).

An indispensable reference work for all those concerned with the protection of workers' safety and health, and a source of practical information, presented objectively and systematically, even for those with no specialized medical or technical knowledge. All the different aspects of occupational health and safety are covered in concise, comprehensive and clearly written articles by internationally known specialists. Above all, the accent is placed on practical information and on the safety precautions to be taken against the main hazards encountered in each branch of industry.

PB84-138163/GBJ (PC)$155 PC only

(North American addresses only)

NIOSH (National Institute for Occupational Safety and Health) Certified Equipment List, as of October 1, 1984 (National Institute for Occupational Safety and Health, 1985).

It lists products certified by NIOSH, contains tables of useful information concerning certified coal mine dust personal samples units and respirators, updates the list of

approved applicants, and lists test procedures for certification of the above products.
PB85-220523/GBJ (PC)A17 (MF)A01
Included in the Monthly Catalog under Item Number 499-F-2 (microfiche). The OCLC number is 10306765.

Work Practices Guide for Manual Lifting (National Institute for Occupational Safety and Health, 1981).
It summarizes research on the hazards of manual materials handling and offers recommendations to reduce the human and economic burden imposed by improper materials handling.
PB82-178948/GBJ (PC)A09 (MF)A01
Included in the Monthly Catalog under Item Number 499-F-6. The OCLC number is 07586837.

Non-Reference

Hazard Assessment of the Electronic Component Manufacturing Industry (Research Triangle Institute, 1985).
The scope of the contract was to identify and estimate worker exposure to potentially hazardous chemical and physical agents used to manufacture electronic components. The report provides a hazard assessment.
PB86-104049/GBJ (PC)A07 (MF)A01

Potential Health Hazards of Video Display Terminals (National Institute for Occupational Safety and Health, 1980).
Hazards associated with work at visual display terminals are surveyed. Recommendations are included for radiation monitoring, workstation design modifications, illumination, glare control, work/rest schedules, and visual testing.
PB82-218447/GBJ (PC)A05 (MF)A01
Included in the Monthly Catalog. The OCLC number is 7629334.

MEDICAL AND HOSPITAL EQUIPMENT

Non-Reference

Routine Compliance Testing for Diagnostic X-Ray Systems (Bureau of Radiological Health, 1980).
This manual establishes procedures for the routine testing of Diagnostic X-Ray Systems for compliance with the Federal Performance Standard ZICFR1020.30. It covers testing procedures and test equipment.
PB84-190958/GBJ (PC)A12 (MF)A01
Included in the Monthly Catalog. The OCLC number is 07702637.

MICROBIOLOGY

Reference

Handbook of Specimen Collection and Handling in Microbiology, 2nd edition (Centers for Disease Control, 1985).
It covers collecting and transporting specimens to the bacteriology laboratory. The handbook is a compilation of facts and lists basic principles of specimen handling along with the rationale supporting each principle.
PB85-181899/GBJ (PC)$7.50 (MF)A01
Included in the Monthly Catalog under Item Number 505-A.

RADIOBIOLOGY

Non-Reference

Annual Report on Carcinogens (3rd) (Public Health Service, 1982).
It lists all substances known to be carcinogens or which may reasonably be anticipated to be carcinogens, and to which a significant number of persons residing in the U.S. are exposed. It covers the nature of exposures and estimates the number exposed. The report covers the extent to which Federal regulations decrease the risk to the public health from exposures. See also PB82-229808.
PB83-135855/GBJ (PC)A19 (MF)A01
Included in the Monthly Catalog under Item Number 483-A-10 (microfiche). The OCLC number is 06543913.

Preparedness and Response in Radiation Accidents (Food and Drug Administration, 1983).
This report discusses all aspects of preparedness and response currently recognized as necessary for effective protection of individuals and the public in a radiation accident.
PB84-104736/GBJ (PC)A13 (MF)A01
Included in the Monthly Catalog under Item Number 499-L-7.

Radiation Protection Training for Personnel Employed in Medical Facilities (Nuclear Regulatory Commission, 1985).
This report provides information useful for planning and conducting radiation safety training in medical facilities to keep exposures as low as reasonably achievable, and to meet other regulatory, safety and loss prevention requirements in today's hospitals.
NUREG-1134/GBJ (PC)A04 (MF)A01
Included in the Monthly Catalog under Item Number 1051-H-2 (microfiche).

TOXICOLOGY

Reference

Handbook of Toxicity of Pesticides to Wildlife, 2nd edition (Fish and Wildlife Service, 1984).
This second edition provides toxicity estimates of nearly 200 different chemicals or formulations, each tested on one or more of more than 30 different species.
PB85-116267/GBJ (PC)A05 (MF)A01
Included in the Monthly Catalog under Item Number 613-B.

Hazardous Materials Spill Monitoring: Safety Handbook and Chemical Hazard Guide, Part A (Environmental Protection Agency, 1979).
This two-part document is intended to serve as a guide to the hazards associated with a broad range of chemical compounds which may be encountered in hazardous materials spills. The document addresses 655 chemicals

identified on the basis of known toxicity or spill history and designed "hazardous" by the EPA. Part A is a safety and first aid reference for personnel responding to spills of hazardous materials which may involve any of the chemicals addressed.
PB-295853/GBJ (PC)A03 (MF)A01
Included in the Monthly Catalog under Item Number 431-I-24.

Hazardous Materials Spill Monitoring: Safety Handbook and Chemical Hazard Guide, Part B (Environmental Protection Agency, 1979).
Part B is an index of the 655 chemicals and includes a data sheet for each chemical.
PB-295854/GBJ (PC)$46.95 (MF)A01

New and Revised Health Effects Test Guidelines, October 1984 (Environmental Protection Agency, 1984).
It constitutes a set of two new health effects test guidelines and three existing guidelines that have been revised.
PB84-233295/GBJ (PC)A05 (MF)A01
Included in the Monthly Catalog under Item Number 498-C-3. The OCLC number is 10748650.

Pesticide Assessment Guidelines, Subdivision F, Hazard Evaluation: Human and Domestic Animals (Environmental Protection Agency, 1982).
Subdivision F supports the data requirements of 40 CFR Part 158. This subdivision describes protocols for evaluating the toxicity of pesticides to nonhuman organisms. Comments from environmental groups, academia, and industrial representatives were used to relate the results of pertinent studies to human safety evaluations.
PB83-153916/GBJ (PC)A08 (MF)A01

Registry of Toxic Effects of Chemical Substances, 1981-1982 edition, volumes 1, 2, and 3 (National Institute for Occupational Safety and Health, 1983).
The eleventh edition provides basic information on the known toxic and biological effects of chemical substances for the use of anyone concerned with the proper and safe handling of chemicals.
PB85-218071/GBJ (PC)A99 PC only
Included in the Monthly Catalog under Item Number 494-D-1.

Registry of Toxic Effects of Chemical Substances (RTECS), 1985 edition (National Institute for Occupational Safety and Health, 1985) is available on magnetic tape:
These magnetic tapes contain toxicity and bibliographic CODEN files of the 1984 edition. SeePB86-170800/GBJ.
PB86-165768/GBJ (CP)T99 Magnetic tape

The accompanying user's guide is:
Registry of Toxic Effects of Chemical Substances (RTECS).
The User's Guide defines the record layouts and describes the types of data contained in the computer tape version of the 1985 Edition of the NIOSH Registry of Toxic Effects of Chemical Substances. The 1985 file contains 289,240 entries and provides basic information on their known toxic and biological effects.
PB86-170800/GBJ (PC)A05 (MF)A01

There is also Registry of Toxic Effects of Chemical Substances (TECS), 1985 Edition, User's Guide to the RTECS Computer Tape (National Institute for Occupational Safety and Health, 1986). For the system on magnetic tape see, PB86-165768/GBJ.

CHEMLINE: Chemical Dictionary Online User's Guide (PB86-118452/GBJ, ,$8.00), TOXLINE: Toxicology Information Online User's Guide (PB86-118445, ,$8.00), and RTECS: Register of Toxic Effects of Chemical Substances User's Guide (PB86-118437, ,$8.00). This set of three reports costs $16.00, (PB86-118429).

Non-Reference

Drinking Water and Cancer: Review of Recent Findings and Assessment of Risks (Science Research Systems, 1980).
An assessment of evidence of cancer risks to humans from organic containants in drinking water: (1) review of epidemiological literature with emphasis upon case control studies, (2) use of animal data to estimate the carcinogenic potencies of synthetic organic chemicals found recently as contaminants of drinking water from some ground water sources, and (3) discussion of needed research.
PB81-128167/GBJ (PC)A06 (MF)A01
Included in the Monthly Catalog under Item Number 856-E (microfiche).

Identification and Evaluation of Sources for the Toxicology Data Bank (National Library of Medicine, 1985).
The evaluation of 172 sources, plus background discussions and recommendations of a workshop in which 35 professionals from government and the private sector participated, are presented in the report. The focus is on sources on health and environmental effects of toxic substances.
PB85-226421/GBJ (PC)A09 (MF)A01

Methodology for Ranking the Degree of Hazard Associated with Exposure to Carcinogens and Other Toxic Chemicals (Environmental Protection Agency, 1985).
A hazard index is an overall indicator of the potential harm of a hazardous substance to humans and the environment. The paper describes the use of a carcinogenicity index and a systematic (chronic) toxicity index in setting reportable quantities. About 200 potential carcinogens and 200 chemicals associated with other diseases have been evaluated and assigned a hazard ranking.
PB85-167906/GBJ (PC)A04 (MF)A01

Methods for Measuring the Acute Toxicity of Effluents to Acquatic Organisms (Environmental Protection Agency, 1978).
It describes methods for the measurement of the acute toxicity of effluents to macroinvertebrates and fish. The report includes guidelines for effluent sampling and

holding, facilities and equipment, dilution water, test species selection and handling, and data interpretation.
PB-289605/GBJ (PC)A04 (MF)A01
Included in the Monthly Catalog under Item Number 431-I-24.

Second Annual Report on Carcinogens (December 1981) (Public Health Service, 1981).
It lists all substances known to be carcinogens or which may reasonably be anticipated to be carcinogens, and to which a significant number of persons residing in the U.S. are exposed. The report covers the nature of exposures and estimates the number exposed. It also covers the extent to which Federal regulations decrease the risk to the public health from exposure.
PB82-229808/GBJ (PC)A13 (MF)A01

NATURAL RESOURCES AND EARTH SCIENCES

CARTOGRAPHY

Non-Reference

World Data Bank (Central Intelligence Agency, 1973).
The series is a digital representation of coastlines and boundaries of the world for use in automatic mapping systems. It describes linear features.
PB86-167574/GBJ (CP)T99 Magnetic Tape
Seven Diskettes

World Data Bank 2. Volume 1. North America (for microcomputer) (Central Intelligence Agency, 1977).
The data bank is a digital representation of the world. It includes line segment identified data and latitudinal and longitudinal values. The data are contained on floppy disks.
PB85-209930/GBJ (CP)T99 Magnetic Tape

HYDROLOGY AND LIMNOLOGY

Non-Reference

DRASTIC: A Standardized System for Evaluating Ground Water Pollution Potential Using Hydrogeologic Settings (National Water Well Association, 1985).
The methodology described will allow the pollution potential of a hydrogeologic setting to be systematically evaluated anywhere in the U.S.
PB85-228146/GBJ (PC)A09 (MF)A01
Included in the Monthly Catalog under Item Number 431-I-12 (microfiche).

State-of-the-Art of Aquifer Restoration. Volume 1, Sections 1-8 (National Center for Ground Water Research, 1979- 1984).
This two volume report summarizes the state-of-the-art in 8 sections and 7 appendices.
‘385-181071/GBJ (PC)A17 (MF)A01

MINING ENGINEERING

Reference

A Directory of Computer Programs Applicable to U.S. Mining Practices and Problems (Bureau of the Mines, 1977).
This report summarizes the results of the development of a directory of computer programs applicable to U.S. mining practices and problems. The directory includes a sample of computer usage in operating and manufacturing companies, consulting firms, computer companies, research organizations, universities, and various U.S. government agencies.
PB-289743/GBJ (PC)A23 (MF)A01

A Directory of Computer Programs Applicable to U.S. Mining Practices and Problems (1970-1980) (University of Alabama, 1982).
This report summarizes the results of an update on a previous Bureau of Mines grant (G0264026) and includes five additional years of computer program development. The directory includes a sampling of computer usage in operating and manufacturing companies, consulting firms, computer companies, research organizations, universities, and various government agencies.
PB82-253030/GBJ (PC)A22 (MF)A01

Non-Reference

Evaluation of Surface Mining Blasting Procedures (Management Science Association, 1977).
At present, there are many potential hazards associated with surface blasting procedures that are not documented to a degree sufficient for the development and promulgation of safety standards. In addition, there are many operations where safer methods might be devised. The purpose of this program is to identify and document commonly used surface blasting practices and evaluate them in terms of their potential hazards with the objective of improving safety through the development of guidelines for safer blasting procedures in surface mining.
PB80-148653/GBJ (PC)A08 (MF)A01

Factors Associated with Disabling Injuries in Underground Coal Mines (Department of Labor, 1982).
The study compares conditions, practices, and attitudes at underground bituminous coal mines having low injury incident rates with those found at mines having high injury incident rates.
DE83-902952/GBJ (PC)A05 (MF)A01
Included in the Monthly Catalog under Item Number 637-H. The OCLC number is 9341847.

NUCLEAR SCIENCE AND TECHNOLOGY

Reference

Energy Data Base: Radioactive Waste Minithesaurus (Department of Energy, 1986).

Abstract not available.
DE86-000860/GBJ (PC)$10.00 (MF)A01

Radioactive Decay Data Tables (Department of Energy, 1981).
This compilation of radioactive decay data reviews decay processes, the preparation of data sets, applications of the data, activity ratios, and accuracy of the data.
DOE/TIC/11026/GBJ (PC)A11 (MF)A01

Non-Reference

Regulatory Licensing Status (Blue Book), August 1-August 31, 1983. Summary Report, Nuclear Power Plants Data for Decisions ... (Nuclear Regulatory Commission, 1983).
It reviews the status of the progress of the licensing reviews for all construction permits, operating licenses, special projects and non-power reactor renewals under review, as reported to Congress.
NUREG/0580-V12-N8/GBJ (PC)A04 (MF)A01
Included in the Monthly Catalog under Item Number 1051-H-30 (microfiche). The OCLC number is 8825562.

ORDNANCE

Reference

Encyclopedia of Explosives and Related Items, Volume 10 (Department of the Army, 1984).
This series covers the unclassified information on explosives and related subjects.
AD-A134347/4/GBJ (PC)$43.50 (MF)$43.50
This volume contains entries, errata, and an index for the ten volumes. All ten volumes are available:

Volume 1 (AD-257189)
Volume 2 (AD-422747)
Volume 3 (AD-653029)
Volume 4 (AD-745472)
Volume 5 (AD-768063)
Volume 6 (AD-A011845)
Volume 7 (AD-A019502)
Volume 8 (AD-A057762)
Volume 9 (AD-A097595)
Volume 10(AD-A134347)

Included in the Monthly Catalog under Item Number 325.

Title Index

This index lists the core collection by title. After each title is the NTIS order number followed by a subject section heading. This subject section is where a full description of a report will be found within the core collection listing starting on page 21. Please note that most subject sections are divided into reference and non-reference.

Acid Precipitation in North America: 1983 Annual Data Summary from Acid Deposition System Data Base PB86-166345/GBJ (Environmental Pollution: Control)

Agricultural Chartbook, 1985 PB86-143799/GBJ (Agriculture and Food)

Agricultural Databases Directory PB86-120789/GBJ (Agriculture and Food)

Agricultural Statistics of the People's Republic of China, 1949-62 PB85-117513/GBJ (Agriculture and Food)

Agricultural Statistics on Eastern Europe and the Soviet Union, 1960-80 PB84-122134/GBJ (Agriculture and Food)

Air Quality Data -- 1980 Annual Statistics Including Summaries with Reference to Standards PB82-106501/GBJ (Environmental Pollution: Control)

Air Quality Data -- 1984 Annual Statistics Including Summaries with Reference to Standards PB85-214237/GBJ (Environmental Pollution: Control)

All Communist Country Reports PB86-927900/GBJ (Behavior and Society/Business and Economics)

Ambient Water Quality Criteria for Ammonia PB85-227114/GBJ (Medicine and Biology/Biology)

Ambient Water Quality Criteria for Arsenic PB85-227445/GBJ (Medicine and Biology/Biology)

Ambient Water Quality Criteria for Cadmium PB85-227031/GBJ (Medicine and Biology/Biology)

Ambient Water Quality Criteria for Chlorine PB85-227429/GBJ (Medicine and Biology/Biology)

Ambient Water Quality Criteria for Chromium PB85-227478/GBJ (Medicine and Biology/Biology)

Ambient Water Quality Criteria for Copper PB85-227023/GBJ (Medicine and Biology/Biology)

Ambient Water Quality Criteria for Cyanide PB85-227460/GBJ (Medicine and Biology/Biology)

Ambient Water Quality Criteria for Lead PB85-227437/GBJ (Medicine and Biology/Biology)

Ambient Water Quality Criteria for Mercury PB85-227452/GBJ (Medicine and Biology/Biology)

Analysis of the Use of Regulation A for Small Public Offerings PB84-136662/GBJ (Behavior and Society/Business and Economics)

Annual Report on Carcinogens PB83-135855/GBJ (Medicine and Biology/Radiobiology)

Appearances of Soviet Leaders PB85-928103/GBJ (Behavior and Society/History, Law, and Political Science)

Architects and Engineers Guide to Energy Conservation in Existing Buildings DOE/CS/0132/GBJ (Energy)

Aviation Noise Effects AD-A154319/8/GBJ (Aeronautics)

Bibliography of Appropriate Technology Information for Developing Countries PB83-113852/GBJ (General Titles)

Bicentennial Census: New Directions for Methodology in 1990 PB86-148574/GBJ (Behavior and Society/Society)

Budget and Budget Title Files, FY87 (United States Government PB86-165420/GBJ (Behavior and Society/Administration and Management)

Budget Data and Title Files PB86-100617/GBJ (Behavior and Society/Administration and Management)

Bureau of Health Professions Area Resource File (ARF) Documentation Tape HRP-0906615/0/GBJ (Medicine and Biology/Health)

Bureau of Health Professions Area Resource File (ARF) Tape HRP-0906617/6/GBJ (Medicine and Biology/Health)

Bureau of Health Professions Area Resource File (ARF) Tape and Bureau of Health Professions Area Resource File Documentation HRP-0906618/4/GBJ (Medicine and Biology/Health)

Campaign Finance Law PB84-215797/GBJ (Behavior and Society/History, Law, and Political Science)

Catalog of Government Patents PB86-116175/GBJ (Behavior and Society/Business and Economics)

Catalog of the National Energy Software Center PB84-906299/GBJ (General Library and Information Titles)

CCITT Plenary Assembly, 8th ... PB85-192334/GBJ (Communication)

CCITT Plenary Assembly, 8th ... PB85-192375/GBJ (Communication)

CCITT Plenary Assembly, 8th ... PB85-192409/GBJ (Communication)

CCITT Plenary Assembly, 8th ... PB85-192458/GBJ (Communication)

CCITT Plenary Assembly, 8th ... PB85-192466/GBJ (Communication)

CCITT Plenary Assembly, 8th ... PB85-192565/GBJ (Communication)

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CCITT Plenary Assembly, 8th ... PB85-192631/GBJ (Communication)

CCITT Plenary Assembly, 8th ... PB85-192680/GBJ (Communication)

CCITT Plenary Assembly, 8th... PB85-192425/GBJ (Communication)

CCITT Plenary Assembly, 8th... PB85-192524/GBJ (Communication)

CCITT Plenary Assembly, 8th... PB85-192318/GBJ (Communication)

CCITT Plenary Assembly, 8th ... PB85-192367/GBJ (Communication)

Characterization of Hazardous Waste Sites PB85-215960/GBJ (Environmental Pollution: Control)

CHEMLINE: Chemical Dictionary Online User's Guide PB86-118452/GBJ (General Library and Information Titles)

Chiefs of State and Cabinet Members of Foreign Governments PB86-928400/GBJ (Behavior and Society/History, Law, and Political Science)

Child Abuse and Neglect Litigation SHR-0011443/GBJ (Behavior and Society/Society)

China Reports PB86-928200/GBJ (Behavior and Society/Business and Economics)

Classification Scheme for Client Problems in Community Health Nursing HRP-0501501/GBJ (Medicine and Biology/Health)

Codes for Named Populated Places, Primary County Divisions ... FIPS PUB55/GBJ (General Library and Information Titles)

Codes for Named Populated Places, Primary County Divisions, and Other Locational Entities of the United States (FIPS PUB 55), 8th Update PB86-154002/GBJ (General Library and Information Titles)

Common Blood and Tissue Parasites for Man PB297959/GBJ (Medicine and Biology/Clinical Medicine)e

Compilation of Air Pollutant Emission Factors , No. 8 PB288905/GBJ (Environmental Pollution: Control)

Compilation of Air Pollutant Emission Factors, No. 9 PB81-244097/GBJ (Environmental Pollution:: Control)

Compilation of Air Pollutant Emission Factors, No. 10 PB80-199045/GBJ (Environmental Pollution: Control)

Compilation of Air Pollutant Emission Factors, No. 11 PB81-178014/GBJ (Environmental Pollution: Control)

Compilation of Air Pollutant Emission Factors, No. 12 PB82-101213/GBJ (Environmental Pollution: Control)

Compilation of Air Pollutant Emission Factors, No. 13 PB83-126557/GBJ (Environmental Pollution: Control)

Compilation of Air Pollutant Emission Factors, No. 14 PB83-250720/GBJ (Environmental Pollution: Control)

Compilation of Air Pollutant Emission Factors, No. 15 PB84-199744/GBJ (Environmental Pollution: Control)

Computer Crime PB83-111054/GBJ (Computers)

Computer Sciences Microthesaurus PB80-207814/GBJ (General Library and Information Titles)

Conference on Environmental and Naturally Occurring Toxins in Animal Feeds and Grains Related to Animal Health PB84-170471/GBJ (Agriculture and Food)

Conference on Mycotoxins in Animal Feeds and Grains Related to Animal Health ... PB300300/GBJ (Agriculture and Food)

Conference on Mycotoxins in Animal Feeds and Grains Related to Animal Health ... PB80-221773/GBJ (Agriculture and Food)

Consumer Complaint Handling in America PB80-176316/GBJ (Behavior and Society/Business and Economics)

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PB80-133051/GBJ Industrial Source Complex Dispersion Model User's Guide, Volume II). (Environmental Pollution: Control)

PB80-135353/GBJ Samplers and Sampling Procedures for Hazardous Waste Streams (Environmental Pollution: Control)

PB80-148653/GBJ Evaluation of Surface Mining Blasting Procedures (Natural Resources and Earth Sciences/Mining Engineering)

PB80-176316/GBJ Consumer Complaint Handling in America (Behavior and Society/Business and Economics)

PB80-195795/GBJ A System for Fire Safety Evaluation of Health Care Facilities (Building and Civil Engineering)

PB80-199045/GBJ Compilation of Air Pollutant Emission Factors, No. 10 (Environmental Pollution: Control)

PB80-207814/GBJ Computer Sciences Microthesaurus (General Library and Information Titles)

PB80-221773/GBJ Conference on Mycotoxins in Animal Feeds and Grains Related to Animal Health (Agriculture and Food)

PB81-126167/GBJ Drinking Water and Cancer (Medicine and Biology/Toxicology)

PB81-133175/GBJ A Directory of Federal Statistical Data Files (General Library and Information Titles)

PB81-178014/GBJ Compilation of Air Pollutant Emission Factors, No. 11 (Environmental Pollution: Control)

PB81-179871/GBJ Sample Criteria for Procedure Review (Medicine and Biology/Clinical Medicine)

PB81-179889/GBJ Reference Criteria for Short-Stay Hospital Review (Medicine and Biology/Health)

PB81-188039/GBJ The Integrated Library System (General Library and Information Titles)

PB81-198376/GBJ Water Resources Thesaurus (General Library and Information Titles)

PB81-244097/GBJ Compilation of Air Pollutant Emission Factors, No. 9 (Environmental Pollution: Control)

PB82-100066/GBJ Social Science and Business Microthesaurus (General Library and Information Titles)

PB82-101213/GBJ Compilation of Air Pollutant Emission Factors, No. 12 (Environmental Pollution: Control)

PB82-106501/GBJ Air Quality Data -- 1980 Annual Statistics Including Summaries with Reference to Standards (Environmental Pollution: Control)

PB82-127275/GBJ Library Statistics of Colleges and Universities (General Library and Information Titles)

PB82-129909/GBJ COSATI Subject Category List (General Library and Information Titles)

PB82-131715/GBJ Health Care Microthesaurus (General Library and Information Titles)

PB82-169087/GBJ Library Statistics of Colleges and Universities (General Library and Information Titles)

PB82-178948/GBJ Work Practices Guide for Manual Lifting (Medicine and Biology/Health)

PB82-218447/GBJ Potential Health Hazards of Video Display Terminals (Medicine and Biology/Health)

PB82-229808/GBJ Second Annual Report on Carcinogens (Medicine and Biology/Toxicology)

PB82-253030/GBJ A Directory of Computer Programs Applicable to U.S. Mining Practices and Problems (Natural Resources and Earth Sciences/Mining Engineering)

PB82-927903/GBJ Directory of Officials of the German Democratic Republic (Behavior and Society/History, Law, and Political Science)

PB83-111054/GBJ Computer Crime (Computers)

PB83-113852/GBJ Bibliography of Appropriate Technology Information for Developing Countries (General Titles)

PB83-124503/GBJ Handbook for Sampling and Sample Preservation of Water and Wastewater (Chemistry)

PB83-126557/GBJ Compilation of Air Pollutant Emission Factors, No. 13 (Environmental Pollution: Control)

PB83-135855/GBJ Annual Report on Carcinogens (Medicine and Biology/Radiobiology)

PB83-137448/GBJ Initial Graphics Exchange Specification (Computers)

PB83-153890/GBJ Pesticide Assessment Guidelines. Subdivision D: Product Chemistry (Chemistry)

PB83-153916/GBJ Pesticide Assessment Guidelines, Subdivision F, Hazard Evaluation: Human and Domestic Animals (Medicine and Biology/Toxicology)

PB83-156034/GBJ Corporate Author Authority List (General Library and Information Titles)

PB83-217547/GBJ Overview of Artificial Intelligence and Robotics, Volume 2. Robotics (Computers)

PB83-217554/GBJ Overview of Computer Vision (Computers)

PB83-217562/GBJ Overview of Expert Systems (Computers)

PB83-218891/GBJ Metropolitan Statistical Areas (Behavior and Society/Administration and Management)

PB83-238089/GBJ Establishing a Home Maintenance Program for Elderly Homeowners: A Guidebook (Behavior and Society/Society)

PB83-240937/GBJ Patent Profiles: Biotechnology (1982 Update) (Medicine and Biology/Clinical Medicine)

PB83-250720/GBJ Compilation of Air Pollutant Emission Factors, No. 14 (Environmental Pollution: Control)

PB83-927908/GBJ Directory of Officials of the Polish People's Republic (Behavior and Society/History, Law, and Political Science)

PB84-104280/GBJ MEDLARS Indexing Manual (General Library and Information Titles)

PB84-104298/GBJ MEDLARS Indexing Instructions (General Library and Information Titles)

PB84-104736/GBJ Preparedness and Response in Radiation Accidents (Medicine and Biology/Radiobiology)

PB84-108711/GBJ Microwave Receivers and Related Components (Communication)

PB84-120039/GBJ MEDLARS Indexing Instructions, Tumor Key Supplement (General Library and Information Titles)

PB84-120047/GBJ Medical Subject Headings, Tree Annotations. Technical Notes. Medlars Indexing Instructions (General Library and Information Titles)

PB84-122134/GBJ Agricultural Statistics on Eastern Europe and the Soviet Union, 1960-80 (Agriculture and Food)

PB84-127695/GBJ Economic Cases of the Civil Aeronautics Board (Behavior and Society/Business and Economics)

PB84-136662/GBJ Analysis of the Use of Regulation A for Small Public Offerings (Behavior and Society/Business and Economics)

PB84-138163/GBJ Encyclopedia of Occupational Health and Safety (Medicine and Biology/Health)

PB84-151091/GBJ Housing Standards (Building and Civil Engineering)

PB84-156058/GBJ Information and Steps Necessary to Form Research and Development Limited Partnerships (Behavior and Society/Business and Economics)

PB84-158500/GBJ EPA (Environmental Protection Agency) Publications Bibliography 1977-1983 (Environmental Pollution: Control)

PB84-170471/GBJ Conference on Environmental and Naturally Occurring Toxins in Animal Feeds and Grains Related to Animal Health (Agriculture and Food)

PB84-186808/GBJ NLM Online Services Reference Manual (General Library and Information Titles)

PB84-186816/GBJ NLM Online Services Reference Manual, 1982 and Supplement (General Library and Information Titles)

PB84-190958/GBJ Routine Compliance Testing for Diagnostic X- Ray Systems (Medicine and Biology/Medical and Hospital Equipment)

PB84-199744/GBJ Compilation of Air Pollutant Emission Factors, No. 15 (Environmental Pollution: Control)

PB84-215797/GBJ Campaign Finance Law (Behavior and Society/History, Law, and Political Science)

PB84-233295/GBJ New and Revised Health Effects Test Guidelines (Medicine and Biology/Toxicology)

PB84-240357/GBJ New Television Networks (Communication)

PB84-240365/GBJ New Television Networks (Communication)

PB84-906299/GBJ Catalog of the National Energy Software Center (General Library and Information Titles)

PB84-927907/GBJ Directory of Officials of the Bulgarian People's Republic (Behavior and Society/History, Law, and Political Science)

PB84-927914/GBJ Directory of East German Officials (Behavior and Society/History, Law, and Political Science)

PB84-928108/GBJ Directory of Soviet Officials: National Organizations (Behavior and Society/History, Law, and Political Science)

PB85-102655/GBJ Morphology of Diagnostic Stages of Intestinal Parasites of Humans (Medicine and Biology/Clinical Medicine)

PB85-103026/GBJ Proposed Sampling and Analytical Methodologies for Addition to Test Methods for Evaluating Solid Waste (Chemistry)

PB85-116267/GBJ Handbook of Toxicity of Pesticides to Wildlife (Medicine and Biology/Toxicology)

PB85-117513/GBJ Agricultural Statistics of the People's Republic of China, 1949-82 (Agriculture and Food)

PB85-120566/GBJ Helping the Homeless: A Resource Guide (Behavior and Society/Society)

PB85-122745/GBJ Recommended Practice for the Use of Parshall Flumes and Palmer-Bowlus Flumes in Wastewater Treatment Plants (Environmental Pollution: Control)

PB85-136927/GBJ End User's Guide to Buying Small Computers (Computers)

PB85-144822/GBJ Finding the Law (Behavior and Society/History, Law, and Political Science)

PB85-155331/GBJ Procurement Programs ... DOD Budget for Fiscal Year 1986 (Behavior and Society/Business and Ecomonics)

PB85-161115/GBJ MSA: Metropolitan Statistical Areas Data Tape (Computers)

PB85-167906/GBJ Methodology for Ranking the Degree of Hazard Associated with Exposure to Carcinogens and Other Toxic Chemicals (Medicine and Biology/Toxicology)

PB85-170769/GBJ Food Gaps and Surpluses in Developing Countries: Status, Trends, and Implications, 1967-88 (Agriculture and Food)

PB85-175164/GBJ Engineering Field Manual for Conservation Practices (Building and Civil Engineering)

PB85-177947/GBJ Principles of Quality Assurance of Chemical Measurements (Chemistry)

PB85-181071/GBJ State-of-the Art Aquifer Restoration (Natural Resources and Earth Sciences/Hydrology and Limnology)

PB85-181899/GBJ Handbook of Specimen Collection and Handling in Microbiology (Medicine and Biology/Microbiology)

PB85-192318/GBJ CCITT Plenary Assembly, 8th ... (Communication)

PB85-192334/GBJ CCITT Plenary Assembly, 8th ... (Communication)

PB85-192367/GBJ CCITT Plenary Assembly, 8th ... (Communication)

PB85-192375/GBJ CCITT Plenary Assembly, 8th ... (Communication)

PB85-192409/GBJ CCITT Plenary Assembly, 8th ... (Communication)

PB85-192425/GBJ CCITT Plenary Assembly, 8th... (Communication)

PB85-192458/GBJ CCITT Plenary Assembly, 8th ... (Communication)

PB85-192466/GBJ CCITT Plenary Assembly, 8th ... (Communication)

PB85-192524/GBJ CCITT Plenary Assembly, 8th... (Communication)

PB85-192565/GBJ CCITT Plenary Assembly, 8th ... (Communication)

PB85-192607/GBJ CCITT Plenary Assembly, 8th ... (Communication)

PB85-192631/GBJ CCITT Plenary Assembly, 8th ... (Communication)

PB85-192680/GBJ CCITT Plenary Assembly, 8th ... (Communication)

PB85-194488/GBJ Petitions to Delist Hazardous Waste (Environmental Pollution: Control)

PB85-209930/GBJ World Data Bank (Natural Resources and Earth Sciences/Cartography)

PB85-214237/GBJ Air Quality Data -- 1984 Annual Statistics Including Summaries with Reference to Standards (Environmental Pollution: Control)

PB85-214245/GBJ U.S. Energy for the Rest of the Century (Energy)

PB85-215960/GBJ Characterization of Hazardous Waste Sites (Environmental Pollution: Control)

PB85-218071/GBJ Registry of Toxic Effects of Chemical Substances (Medicine and Biology/Toxicology)

PB85-218782/GBJ Techniques for Treating Hazardous Wastes to Remove Volatile Organic Constituents (Environmental Pollution: Control)

PB85-220523/GBJ NIOSH Certified Equipment List (Medicine and Biology/Health)

PB85-224491/GBJ Technical Overview of the Information Resource Dictionary System (Computers)

PB85-225241/GBJ Guideline for Determination of Good Engineering Practice Stack Height ... (Environmental Pollution: Control)

PB85-226421/GBJ Identification and Evaluation of Sources for the Toxicology Data Bank (Medicine and Biology/Toxicology)

PB85-227023/GBJ Ambient Water Quality Criteria for Copper (Medicine and Biology/Biology)

PB85-227031/GBJ Ambient Water Quality Criteria for Cadmium (Medicine and Biology/Biology)

PB85-227049/GBJ Guidelines for Deriving Numerical National Water Quality Criteria for the Protection of Aquatic Organisms and Their Uses (Medicine and Biology/Biology)

PB85-227114/GBJ Ambient Water Quality Criteria for Ammonia (Medicine and Biology/Biology)

PB85-227429/GBJ Ambient Water Quality Criteria for Chlorine (Medicine and Biology/Biology)

PB85-227437/GBJ Ambient Water Quality Criteria for Lead (Medicine and Biology/Biology)

PB85-227445/GBJ Ambient Water Quality Criteria for Arsenic (Medicine and Biology/Biology)

PB85-227452/GBJ Ambient Water Quality Criteria for Mercury (Medicine and Biology/Biology)

PB85-227460/GBJ Ambient Water Quality Criteria for Cyanide (Medicine and Biology/Biology)

PB85-227478/GBJ Ambient Water Quality Criteria for Chromium (Medicine and Biology/Biology)

PB85-228146/GBJ DRASTIC: A Standardized System for Evaluating Ground Water Pollution Potential Using Hydrogeologic Settings (Natural Resources and Earth Sciences/Hydrology and Limnology)

PB85-232627/GBJ Medical Subject Headings, Annotated Alphabetic List (General Library and Information Titles)

PB85-232635/GBJ Medical Subject Headings, Tree Structures (General Library and Information Titles)

PB85-232643/GBJ Permuted Medical Subject Headings (General Library and Information Titles)

PB85-238186/GBJ Short-Stay Hospital Medicare Provider and Beneficiary File (Behavior and Society/Society)

PB85-245678/GBJ Publications of the National Bureau of Standards, 1984 Catalog (General Library and Information Titles)

PB85-913900/GBJ United States Trademarks -- Applications (General Library and Information Titles)

PB85-916000/GBJ NTIS Title Index (General Titles)

PB85-923401/GBJ Guideline for Isolation Precautions in Hospitals (Medicine and Biology/Health)

PB85-923402/GBJ Guideline for Infection Control in Hospital Personnel (Medicine and Biology/Health)

PB85-927901/GBJ Directory of Czechoslovak Officials (Behavior and Society/History, Law, and Political Science)

PB85-927902/GBJ Directory of Officials of the Democratic People's Republic of Korea (Behavior and Society/History, Law, and Political Science)

PB85-927903/GBJ Directory of Romanian Officials (Behavior and Society/History, Law, and Political Science)

PB85-927904/GBJ Directory of Albanian Officials (Behavior and Society/History, Law, and Political Science)

PB85-927906/GBJ Government of the People's Republic of Bulgaria (Behavior and Society/History, Law, and Political Science)

PB85-927907/GBJ Directory of Officials of Vietnam (Behavior and Society/History, Law, and Political Science)

PB85-927908/GBJ Hungarian Socialist Workers' Party (Behavior and Society/History, Law, and Political Science)

PB85-927910/GBJ Government of the Hungarian People's Republic. (Behavior and Society/History, Law, and Political Science)

PB85-928017/GBJ The World Factbook (Behavior and Society/Business and Economics)

PB85-928020/GBJ Directory of Iranian Officials (Behavior and Society/History, Law, and Political Science)

PB85-928041/GBJ Handbook of Economic Statistics (Behavior and Society/Business and Economics)

PB85-928102/GBJ Directory of USSR Foreign Trade Organizations and Officials (Behavior and Society/History, Law, and Political Science)

PB85-928103/GBJ Appearances of Soviet Leaders (Behavior and Society/History, Law, and Political Science)

PB85-928104/GBJ Directory of Soviet Officials: Republic Organizations (Behavior and Society/History, Law, and Political Science)

PB85-928106/GBJ USSR Energy Atlas (Energy)

PB85-928112/GBJ Directory of USSR Ministry of Foreign Affairs Officials (Behavior and Society/History, Law, and Political Science)

PB85-928113/GBJ Directory of USSR Ministry of Defense and Armed Forces Officials (Behavior and Society/History, Law, and Political Science)

PB85-928202/GBJ Directory of Chinese Officials: Scientific and Educational Organizations (Behavior and Society/History, Law, and Political Science)

PB85-928211/GBJ Directory of Chinese Officials: National Level Organizations (Behavior and Society/History, Law, and Political Science)

PB85-954099/GBJ Peer Review Organization Program Manual. Basic Manual. (Medicine and Biology/Health)

PB86-100062/GBJ Investment Climate in Foreign Countries (Behavior and Society/Business and Economics)

PB86-100070/GBJ Investment Climate in Foreign Countries (Behavior and Society/Business and Economics)

PB86-100088/GBJ Investment Climate in Foreign Countries (Behavior and Society/Business and Economics)

PB86-100096/GBJ Investment Climate in Foreign Countries (Behavior and Society/Business and Economics)

PB86-100104/GBJ Investment Climate in Foreign Countries (Behavior and Society/Business and Economics)

PB86-100112/GBJ Small Business Guide to Federal R&D Funding Opportunities (Behavior and Society/Business and Economics)

PB86-100344/GBJ Directory of Federal and State Business Assistance (Behavior and Society/Business and Economics)

PB86-100617/GBJ Budget Data and Title Files (Behavior and Society/Administration and Management)

PB86-104049/GBJ Hazard Assessment of the Electronic Component Manufacturing Industry (Medicine and Biology/Health)

PB86-112349/GBJ Guidelines for Descriptive Cataloging of Reports (General Library and Information Titles)

PB86-116167/GBJ Federal Technology Catalog (General Library and Information Titles)

PB86-116175/GBJ Catalog of Government Patents (Behavior and Society/Business and Economics)

PB86-118437/GBJ RTECS: Registry of Toxic Effects of Chemical Substances (General Library and Information Titles)

PB86-118445/GBJ TOXLINE (General Library and Information Titles)

PB86-118452/GBJ CHEMLINE: Chemical Dictionary Online User's Guide (General Library and Information Titles)

PB86-120789/GBJ Agricultural Databases Directory (Agriculture and Food)

PB86-122512/GBJ Medical Subject Headings - Supplementary Chemical Records (General Library and Information Titles)

PB86-133022/GBJ Guidelines for the Prevention and Control of Nossocomial Infections (Medicine and Biology/Health)

PB86-135357/GBJ Directory of Computer Software (Computers)

PB86-137312/GBJ Improving Federal Productivity (Behavior and Society/Administration and Management)

PB86-138955/GBJ Studies of Tax Policy, Innovation, and Patents: A Final Report (Behavior and Society/Business and Economics)

PB86-141371/GBJ Trends in Industrial R and D Activities in the United States, Europe and Japan, 1963-83 (Behavior and Society/Administration and Management)

PB86-143799/GBJ Agricultural Chartbook, 1985 (Agriculture and Food)

PB86-144532/GBJ Farm Real Estate: Historical Series Data, 1950-85 (Agriculture and Food)

PB86-148418/GBJ List of Serials Indexed for Online Users (General Library and Information Titles)

PB86-148574/GBJ Bicentennial Census: New Directions for Methodology in 1990 (Behavior and Society/Society)

PB86-148657/GBJ Urban Policy in a Changing Federal System (Behavior and Society/Society)

PB86-151446/GBJ Directory of Computerized Data Files (Computers)

PB86-151776/GBJ National OES (Occupational Employment Statistics) Survey-Based Matrix: Occupation- Industry Employment, 1984 and Projected 1995 Alternatives (Behavior and Society/Business and Economics)

PB86-153681/GBJ Federal Funds for Research and Development (Behavior and Society/Administration and Management)

PB86-153699/GBJ Federal Funds for Research and Development (Behavior and Society/Administration and Management)

PB86-154002/GBJ Codes for Named Populated Places, Primary County Divisions, and Other Locational Entities of the United States (FIPS PUB 55), 8th Update (General Library and Information Titles)

PB86-158482/GBJ Grateful Med (General Library and Information Titles)

PB86-165420/GBJ Budget and Budget Title Files, FY87 (United States Government (Behavior and Society/Administration and Management)

PB86-165768/GBJ Registry of Toxic Effects of Chemical Substances (RTECS) (Medicine and Biology/Toxicology)

PB86-166345/GBJ Acid Precipitation in North America: 1983 Annual Data Summary from Acid Deposition System Data Base (Environmental Pollution: Control)

PB86-167566/GBJ Standard Industrial Classification Manual, 1977 (for Microcomputers) (General Library and Information Titles)

PB86-167574/GBJ World Data Bank (Natural Resources and Earth Sciences/Cartography)

PB86-170600/GBJ Registry of Toxic Effects of Chemical Substances (RTECS) User's Guide (Medicine and Biology/Toxicology)

PB86-182060/GBJ Reports on AIDS ... (Medicine and Biology/Clinical Medicine)

PB86-197431/GBJ SEDS Public Use Tape (Energy)

PB86-900100/GBJ Government Reports Announcements and Index (General Titles)

PB86-904200/GBJ EPA Publications Bibliography Quarterly Abstract Bulletin (General Library and Information Titles)

PB86-927900/GBJ All Communist Country Reports (Behavior and Society/Business and Economics)

PB86-927902/GBJ Directory of Hungarian Officials (Behavior and Society/History, Law, and Political Science)

PB86-927903/GBJ Directory of Yugoslav Officials: A Reference Aid (December 1985) (Behavior and Society/History, Law, and Political Science)

PB86-928100/GBJ Russian Reports (Behavior and Society/Business and Economics)

PB86-928101/GBJ Directory of Soviet Officials: Science and Education (Behavior and Society/History, Law, and Political Science)

PB86-928200/GBJ China Reports (Behavior and Society/Business and Economics)

PB86-928203/GBJ Directory of Chinese Officials: Provincial Organizations (Behavior and Society/History, Law, and Political Science)

PB86-928400/GBJ Chiefs of State and Cabinet Members of Foreign Governments (Behavior and Society/History, Law, and Political Science)

PB86-954000/GBJ Peer Review Organization Program Manual. Revisions (Medicine and Biology/Health)

PR-188/660/GBJ NTIS Published Searches: New Master Catalog. (General Titles)

PR-253/GBJ NTIS Bibliographic Database Guide: A Reference Tool for Users of the National Technical Information (General Library and Information Titles)

PR-365/745/GBJ Tech Notes Service (General Titles)

PR-745/86/GBJ NTIS Digest (General Titles)

PR-802/GBJ Market Share Reports Catalog (Behavior and Society/Business and Economics)

SHP-0011443/GBJ Child Abuse and Neglect Litigation (Behavior and Society/Society)

SHR-0012441/GBJ Taking Stock: Rural People and Poverty from 1970 to 1983 (Behavior and Society/Society)

SHR-0012684/GBJ Getting Yours: A Publicity and Funding Primer for Nonprofit and Voluntary Organziations (Behavior and Society/Administration and Management)

TID28673/GBJ National Office Compliance Manual (Energy)

Appendix: Searching OCLC for NTIS Materials

Contents[1]

- Searching NTIS Records in OCLC
  - Brief Description of OCLC
  - Brief Description of OCLC EASI-Reference Database
  - Brief Description of BRS
  - Logging on to OCLC through BRS
  - Searching the OCLC EASI-Reference Database
    - NTIS Materials on OCLC
    - NTIS as Publisher
    - Searching for Known Items
      - Searching by Title
      - Searching by Personal Author
      - Searching by Corporate Author
    - Searching by Subject
- Communications Software Considerations
- References and Documentation

Searching NTIS Records in OCLC

Brief Description of OCLC

OCLC Online Computer Library Center, Inc.
6565 Frantz Road
Dublin, OH 43017
(614) 764-6000

From the Encyclopedia of Information Systems and Services: OCLC (Online Computer Library Center, Inc.) is a computer library service and research organization which maintains the OCLC bibliographic computer & telecommunications system to support resource sharing among more than 6,000 member libraries. Participants can use the OCLC Online Union Catalog to catalog books, serial publications, conference proceedings, technical reports, and other library materials; to order custom-printed catalog cards; to create machine-readable data files for their own library use; to access location information in library materials; and to facilitate interlibrary lending.

The two primary input sources are 1) cataloging & holdings data submitted by member libraries, and 2) U.S. Library of Congress MARC data. The OCLC Online Union Catalog contains 13.6 million records as of April 1986. Approximately 1 million items are cataloged each year.

Brief Description of OCLC EASI-Reference Database

BRS Label: OCLC

SCOPE: The EASI-Reference database, available through BRS, provides access, by subject, title, author, and other access points to a subset of the bibliographic information contained in the OCLC Online Union Catalog. The subset consists of records from the Online Union Catalog which have imprint dates falling within the most recent 4 year period; that is, the 3 latest calendar years and fraction of the current year. Materials from all 8 cataloging formats used by OCLC; i.e., books, serials, sound recordings, software, musical scores, maps, manuscripts, and audiovisual materials, are part of the database.

SIZE: Approximately 1 million records

UPDATES: Quarterly with approximately 100,000 records per update.

SOURCE: BRS Aid Page: OCLC.

Brief Description of BRS[2]

BRS Information Technologies
1200 Route 7
Latham, NY 12110
Customer Service: (800) 345-4BRS

BRS Information Technologies is an international online service providing access to more than 87 databases in science, technology, business, economics, humanities, and the social sciences. It acquires machine-readable files of bibliographic, numeric, and full-text information from libraries, publishers, governmental agencies, and other sources; stores these in its central computer facilities under the BRS/SEARCH software; and permits libraries, research organizations, businesses and individuals to retrieve desired information using remote terminals through the Telenet, Tymnet & Uninet telecommunications networks. BRS/SEARCH software incorporates a variety of features such as searching strings of words in proximity, Boolean logic, and searching in different labeled fields. Information can be typed while online or printed offline and mailed to the user. BRS supplies user training, continuing educational programs and instructional materials.

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[1] Prepared by Charlene M. Baldwin and Douglas E. Jones, Science-Engineering Library, University of Arizona, Tucson

[2] Source: Encyclopedia of Information Systems and Services.

Logging on to OCLC through BRS

LOGON Procedure

1. Set Telecommunications Parameters

   FULL DUPLEX
   EVEN PARITY
   STOP BITS - 1
   WORD LENGTH - 8

2. Choose telecommunications carrier and dial appropriate number for your geographical location. For assistance, call customer service for the major carriers:

   UNINET (800) 821-5340
   TELENET (800) 336-0437
   TYMNET (800) 323-7389

3. LOGON

   a. UNINET

Computer	User Response
L ?	<CR> . <CR>
SERVICE:	BRS; a <CR>
CONNECTED. ENTER BRS PASSWORD	XXXXX <CR>
ENTER SECURITY PASSWORD	XXXXX <CR>

   b. TELENET

Computer	User Response
(Signal that computer is connected)	CR> <CR>
TERMINAL =	Enter Terminal ID or <CR>
@	C 31520 BR <CR>
CONNECTED. ENTER BRS PASSWORD	XXXXX <CR>
ENTER SECURITY PASSWORD	XXXXX <CR>

   c. TYMNET LOGON

Computer	User Response
PLEASE TYPE YOUR TER MINAL IDENTIFIER	A (NO <CR>)
PLEASE LOGON	BRS <CR>
+	<CR>
ENTER BRS PASSWORD	XXXXX <CR>
ENTER SECURITY PASSWORD	XXXXX <CR>

Note: Here, and throughout this appendix, the symbol <CR> means the Carriage Return, Return Key, or the Send Key on the keyboard.

4. BRS signals that you have logged on success - fully, and asks if you would like to see the latest broadcast message. You are prompted to answer either yes or no.

5. Next select the OCLC database.

Computer	User Response
Enter Database Name:	OCLC <CR>

This connects you to the OCLC database. You are automatically in the search mode, and can enter your selected search terms.

Searching the OCLC EASI-Reference Database

NTIS Materials on OCLC

Although NTIS does not directly input records to the database, OCLC member libraries contribute cataloging records for NTIS items for which they create original catalog records. Since these are all "contributed copy," there is variation in the quality and completeness of each record, especially fields which OCLC does not require a library to complete (for example, the report number field). Also, libraries may be cataloging copies of publications which, although subsequently available from NTIS, were originally obtained from another source, usually directly from a Federal agency or the Government Printing Office. Such items will not have NTIS listed as the publisher.

NTIS as Publisher

Purpose: To search those documents in the OCLC database which name NTIS or the National Technical Information Service in any searchable field, including the publisher field, identified by the field code flag, "PB".

Steps: In search mode, type:

```
NTIS OR NATIONAL ADJ TECHNICAL ADJ
INFORMATION ADJ SERVICE <CR>
```

This search results in a set of records where NTIS is mentioned. A trial search in May 1985 resulted in a set composed of 7818 documents.

Searching for Known Items

Searching by Title

If you know the title of a work, you may search for it by specifying the Title Field, TI. Reference Table 1 for a list of fields.

Steps: In search mode, type your title, with each word separated by one of the following connectors:

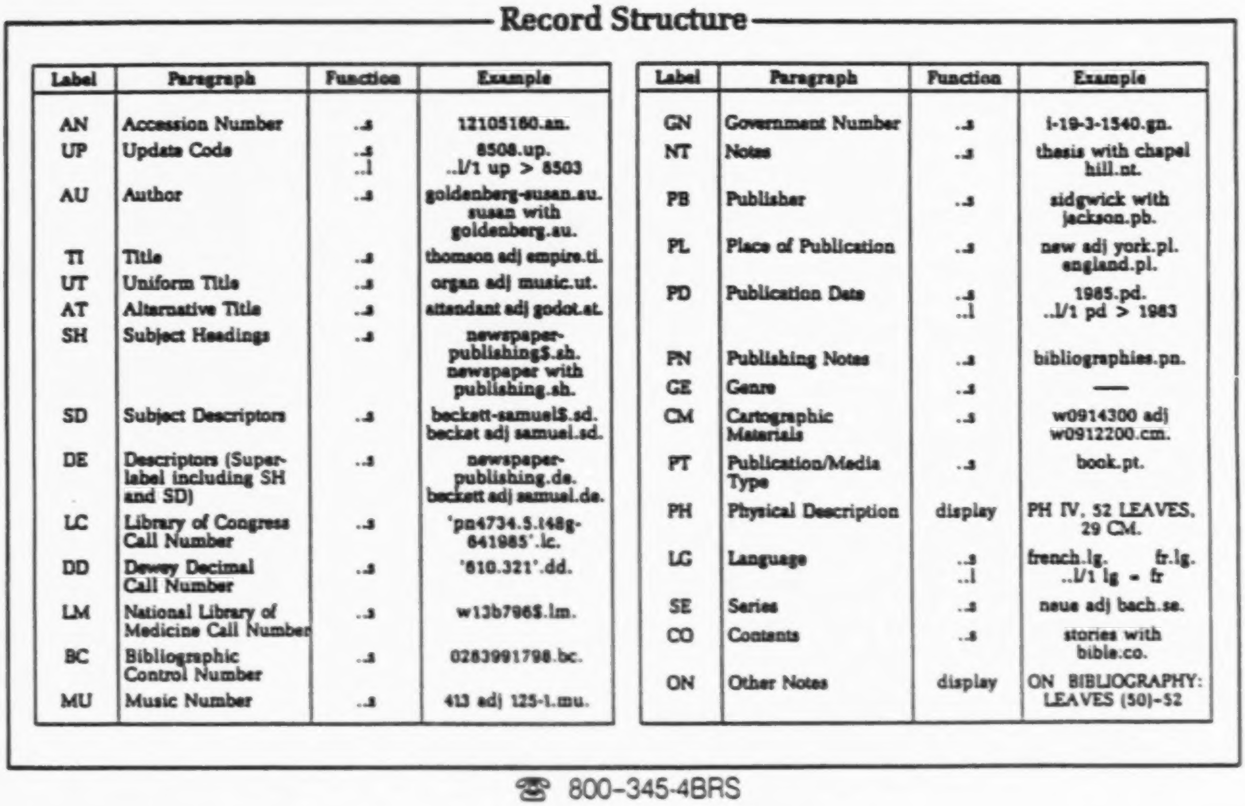
ADJ -- to require adjacent proximity of the words,

or

SAME -- to require that the words appear in the same field, but not necessarily adjacent to each other, or in that order.

Table 1

Fields in OCLC Databases[1]



Record Structure

Label	Paragraph	Function	Example
AN	Accession Number	..s	12105160.an.
UP	Update Code	..s ..l	8508.up. ..l/1 up > 8503
AU	Author	..s	goldenberg-susan.au. susan with goldenberg.au.
TI	Title	..s	thomson adj empire.ti.
UT	Uniform Title	..s	organ adj music.ut.
AT	Alternative Title	..s	attendant adj godot.at.
SH	Subject Headings	..s	newspaper-publishing$.sh. newspaper with publishing.sh.
SD	Subject Descriptors	..s	beckett-samuel$.sd. becket adj samuel.sd.
DE	Descriptors (Super-label including SH and SD)	..s	newspaper-publishing.de. beckett adj samuel.de.
LC	Library of Congress Call Number	..s	'pn4734.5.t48g-641985'.lc.
DD	Dewey Decimal Call Number	..s	'610.321'.dd.
LM	National Library of Medicine Call Number	..s	w13b796$.lm.
BC	Bibliographic Control Number	..s	0283991798.bc.
MU	Music Number	..s	413 adj 125-1.mu.

Label	Paragraph	Function	Example
GN	Government Number	..s	i-19-3-1540.gn.
NT	Notes	..s	thesis with chapel hill.nt.
PB	Publisher	..s	sidgwick with jackson.pb.
PL	Place of Publication	..s	new adj york.pl. england.pl.
PD	Publication Date	..s ..l	1985.pd. ..l/1 pd > 1983
PN	Publishing Notes	..s	bibliographies.pn.
GE	Genre	..s	—
CM	Cartographic Materials	..s	w0914300 adj w0912200.cm.
PT	Publication/Media Type	..s	book.pt.
PH	Physical Description	display	PH IV, 52 LEAVES, 29 CM.
LG	Language	..s ..l	french.lg. fr.lg. ..l/1 lg = fr
SE	Series	..s	neue adj bach.se.
CO	Contents	..s	stories with bible.co.
ON	Other Notes	display	ON BIBLIOGRAPHY: LEAVES (50)-52

☎ 800-345-4BRS

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[1] Source: BRS Aid Page OCLC. BRS Information Technologies, November 1985.

Example: To determine the presence of a known title, Spaceborne Gravity Gradiometers, in the database. In search mode, enter query

```
SPACEBORNE ADJ GRAVITY ADJ
GRADIOMETERS.TI. <CR>
```

The result is printed here. Note that National Technical Information Service appears in the Publisher Field.

```
AN      10715011.  8603.
AU Spaceborne-Gravity-Grandiometer-
   Workshop-1983-Goddard-Space-
   Flight-Center.  Wells-William-C-
   1942.  United-States-National-
   Aeronautics-and-Space-
   Administration-Scientific-and-
   Technical-Information-Branch.
   Science-Applications-Inc.
TI Spaceborne gravity gradiometers,
   proceedings of a workshop
   sponsored by the OSSA Geodynamics
   Branch and held at NASA Goddard
   Space Flight Center, Greenbelt,
   Maryland, February 28-March2,
   1983.
SH Gravity-Measurement-Congresses.
   Gravimeter-Geophysical-instrument
   Congresses.  Astronautics-in-
   geodesy-Congresses.
LC QB330.S641983.
DD 526.70287.  19.
BC LCCN:  84602089.
GN NAS-1-55-2305.
PB National Aeronautics and Space
   Administration, Scientific and
   Technical Information Branch.
   For sale by the National
   Technical Information Service.
PL District of Columbia.
   Washington, D.C.  Springfield,
   VA.
PD 1983.
PN INCLUDES:  Bibliographies.
   Government publication.
   Conference publication.
PT Book.
PH viii, 76 pages, ill, 28 cm.
LG English (En).
SE NASA conference publication.
   2305
END OF REQUEST
```

Searching by Personal Author

If you know the personal author of an NTIS report, you can search for it by specifying the Author Field, AU.

Steps: In search mode, type the authors name in the following format:

```
LASTNAME-FIRSTNAME-MIDDLENAME.AU.
<CR>
```

or

```
LASTNAME-FIRSTNAMEINITIAL-
MIDDLENAMEINITIAL.AU. <CR>
```

Example: To determine the presence of works by the author Harold D. Guither. In search mode, enter query

```
GUITHER-HAROLD-D.AU. <CR>
```

The result is printed here. Note that National Technical Information Service appears in the Publisher Field.

```
AN 12125105.  8603.
AU Guither-Harold-D.  Hines-
   Jennifer.  Bauer-Robert.
TI The economic effects of
   underground mining upon land used
   for Illinois agriculture.
SH Land-use-Rural-Illinois.
   Farms-Illinois.
   Coal-mines-and-mining-
   Environmental-aspects-Illinois.
   Mine-Subsidences-Illinois.
LC HD211.I3G851985.
DD 333.7613.  19.
BC LCCN:  85622471.
PB Illinois Dept. of Energy and
   Natural Resources; Springfield,
   VA.  For sale by the National
   Technical Information Service.
PL Illinois.  Springfield, Ill.
PD 1985.
PN INCLUDES:  Bibliographies.
   Government publication.
PT Book.
PH iv, (various pagings), ill, 28
   cm.
LG English (En).
SE Document/Illinois Department of
   Energy and Natural Resources. no.
   85/01.
END OF REQUEST
```

Searching by Corporate Author

If you know the corporate source of the NTIS report, you may search for the record in the author field using the corporate source as author.

Steps: In search mode, type the name of the corporate source in non-inverted order, with each word separated by a hyphen, and the field extension .AU. completing the search statement.

Example: To look for materials prepared by the Sandia National Laboratories. In search mode, enter query

```
SANDIA-NATIONAL-LABORATORIES.AU. <CR>
```

One result of this search is printed here. Note that the National Technical Information Service appears in the publisher field.

Note: Searching a corporate author as prolific as the Sandia National Laboratories might result in a set of possibilities too large to review. It is possible to narrow a search set with other requirements such as a specific publication date, language, document type, or place of publication.

```
AN 12891253.  8603.
AU Adams-COR.  Sandia-National-
   Laboratories.  United-States-
   Dept-of-Energy.
TI GRAFAID code user manual,
   Version 2.0.
SH GRAFAID-Computer-program.
   Weapons-Evaluation-Computer-
   program
LC QC771.S34sano.84-1725.
NT Prepared by Sandia National
   Laboratories.  for the United
   States Department of Energy under
   contract.  DE-AC04-76DP00789.
PB Sandia National Laboratories.
   For sale by the National
   Technical Information Service.
PL New Mexico.  Albuquerqu, N.M.
   Springfield, VA.
PD 1985, 09.
PN INCLUDES:  Technical Reports.
   Bibliographies.  Government
   publication.
PT Book.
PH 247 pages (in various
   foliations), 28 cm.
LG English (En).
SE Sandia report.  SAND84-1725.
END OF REQUEST
```

Searching by Subject

Select terms for searching either from keywords known to you, or from terms listed in the Library of Congress Subject Headings List, known as LCSH. Because the subject index on BRS lists each word separately, you do not have to put in the entire heading as it appears in LCSH. Be sure to include synonyms or other closely related terms to help define the subject. In addition, you may want to truncate keywords using the "pound sign" (#) to make sure that you retrieve all forms of a word; e.g., RADIOACTIV#.

Steps: Purpose: To retrieve the records on conferences about flywheels. In search mode, enter query

```
FLYWHEELS--CONGRESSES.SH. <CR>
```

One result is printed here. Note that NTIS appears in the Publisher Field.

In order to limit your retrieval to NTIS items, you must combine the result of the subject search with the "publisher" set described earlier as

```
NTIS OR NATIONAL ADJ TECHNICAL ADJ
INFORMATION ADJ SERVICE
```

```
AN 10435250.  8603..
AU Keckler-Claude-R.  Rodriguez-
   Guillermo-E.  Groom-Nelson-J.
   United-States-National-
   Aeronautics-and-Space
   Aministration-Scientific-and-
   Technical-Information-Branch.
TI Integrated flywheel technology
   1983, proceedings of a workshop
   held at NASA Goddard Space Flight
   Center, Greenbelt, Maryland,
   August 2-3, 1983.
SH Space-vehicles-Attitude-control-
   systems-Congresses.
   Energy-Storage-Congresses.
   Flywheel-Congresses.
   Goddard-Space-Flight-Center
LC TL3260. I561980.
DD 621.82.  19.
BC LCCN:  84601501 //r85.
GN NAS-1-55-2290.
PB National Aeronautics and Space
   Administration, Scientific and
   Technical Information Branch.
   For sale by the National
   Technical Information Service.
PL District of Columbia.
   Washington, D.C.  Springfield,
   VA.
PD 1983.
```

```
PN INCLUDES:  Bibliographies.
   Government publication.
   Conference publication.
PT Book.
PH viii, 213 pages, ill, 28 cm.
LG English (En).
SE NASA conference publication.
   2290
END OF REQUEST
```

Communications Software Considerations

Librarians and "end-users" of online databases who have microcomputers at their user workstations have many choices today as to how they will access remote computers and their stores of information. Some utilize communications software that allow them to learn the direct access protocol of the specific database software, and some utilize "gateway" or menu-driven shell programs to guide them through their choices of databases, formats, and strategies. It is the opinion of the authors that NTIS will offer a better product if it supplies a database that can be accessed in a variety of ways, from "expert" to "novice," and let the user decide what communications software package to use.

References and Documentation

BRS Information Technologies. BRS/SEARCH System User's Manual. Latham, NY, 1986.

Encyclopedia of Information Systems and Services. Detroit, MI, Gale Research Corp., 1983, and supplements.

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		E01	$7.50	T01	$145.00
A02 and A03	9.95	E02	10.00	T02	160.00
A04 and A05	11.95	E03	11.00	T03	275.00
A06 through A09 (inclusive)	16.95	E04	13.50	T04	370.00
A10 through A13 (inclusive)	22.95	E05	15.50	T05	440.00
A14 through A17 (inclusive)	28.95	E06	18.00	T06	535.00
A18 through A21 (inclusive)	34.95	E07	20.50	T07	610.00
A22 through A25 (inclusive)	40.95	E08	23.00	T08	685.00
A99	*	E09	25.50	T09	760.00
		E10	28.00	T10	835.00
		E11	30.50	T11	910.00
		E12	33.00	T12	985.00
N01	45.00	E13	35.50	T13	1,060.00
N02	48.00	E14	38.50	T14	1,135.00
		E15	42.00	T15	1,210.00
		E16	46.00	T16	1,285.00
		E17	50.00	T17	1,360.00
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		E19	60.00	T19	1,510.00
		E20	70.00	T99	*
		E99	*		

*Contact NTIS for price quote.

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5285 Port Royal Road
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Last Name: . . . . First Initial: . . . . .
Title: . . . .
Company/Organization: . . . .
Address: . . . .
. . . .
City/State/Zip: . . . .
Telephone Number: (. . . . . .) . . . .

METHOD OF PAYMENT

☐ Check enclosed payable to NTIS for $ . . . .

☐ Charge to my NTIS Deposit Account number: . . . .

☐ Purchase order number: . . . .

Charge to: ☐ American Express ☐ VISA ☐ MasterCard

Card Number: . . . .
Expiration Date: . . . .
Signature: . . . .
(Required to validate order)

NTIS Order Number	Price*	Quantity	Total Price
		Handling fee on total order	$3.00
		Total	

* See price code table on the left

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PAPER COPY

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A04 and A05	11.95
A06 through A09 (inclusive)	16.95
A10 through A13 (inclusive)	22.95
A14 through A17 (inclusive)	28.95
A18 through A21 (inclusive)	34.95
A22 through A25 (inclusive)	40.95
A99	*
N01	45.00
N02	48.00

E01	$7.50	T01	$145.00
E02	10.00	T02	160.00
E03	11.00	T03	275.00
E04	13.50	T04	370.00
E05	15.50	T05	460.00
E06	18.00	T06	535.00
E07	20.50	T07	610.00
E08	23.00	T08	685.00
E09	25.50	T09	760.00
E10	28.00	T10	835.00
E11	30.50	T11	910.00
E12	33.00	T12	985.00
E13	35.50	T13	1,060.00
E14	38.50	T14	1,135.00
E15	42.00	T15	1,210.00
E16	46.00	T16	1,285.00
E17	50.00	T17	1,360.00
E18	54.00	T18	1,435.00
E19	60.00	T19	1,510.00
E20	70.00	T99	*
E99	*		

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MAIL ORDER TO: National Technical Information Service
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Springfield, VA 22161
(703) 487-4650

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Last Name: .... First Initial: .....
Title: ....
Company/Organization: ....
Address: ....
....
City/State/Zip: ....
Telephone Number: (.......) ....

METHOD OF PAYMENT

☐ Check enclosed payable to NTIS for $ ....

☐ Charge to my NTIS Deposit Account number: ....

☐ Purchase order number: ....

Charge to: ☐ American Express ☐ VISA ☐ MasterCard

Card Number: ....
Expiration Date: ....
Signature: ....
(Required to validate order)

NTIS Order Number	Price*	Quantity	Total Price
		Handling fee on total order	$3.00
		Total	

* See price code table on the left

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